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TRANSCRIPT OF PROCEEDINGS

Edited by

ASSEMBLY INTERIM COMMITTEE ON FISH AND GAME

Chamber of Commerce Hall  
Auditorium  
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FRANK P. BELOTTI, CHAIRMAN

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ASSEMBLY INTERIM COMMITTEE  
ON  
FISH AND GAME

Full Committee Hearing  
San Diego, California  
October 2, 1957 - 10:30 A.M.

MEMBERS IN ATTENDANCE:

Frank P. Belotti, Chairman  
Don A. Allen, Sr.  
Don Anderson  
Thomas M. Erwin  
Myron H. Frew  
Vincent Thomas  
Jack Schrade

OTHER LEGISLATORS PRESENT:

Senator Fred Kraft  
Assemblyman Frank Luckel

STAFF MEMBERS PRESENT:

N. B. Keller  
William Scheuermann

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CHAIRMAN BELOTTI: (After introduction of members:)

The first item on the agenda is the subject of dove protection, so I am going to call on Dr. Weber to proceed. May I ask that you make your testimony as brief as possible, because, with the difficulty that we had here this morning, and with the full agenda that we have, we want to try to conclude the hearing today and still give everyone an opportunity to present his side.

DR. H. M. WEBER, SECRETARY, COMMITTEE FOR DOVE PROTECTION

Mr. Chairman, members of the Committee, and ladies and gentlemen, I would like to repeat the introductory sentence which we made in Sacramento on March 5th.

We said this program is not a prohibition program. This is a program which stresses wise use of our resources. From many angles, dove shooting is unwise and wasteful.

Mr. Chairman, we, in this country, cannot afford any longer to use any resource unwisely, much less a wildlife resource.

Now, at the expense or the risk of being considered as preaching, I would like to read you a sentence from a speech made by the Director of the Fish and Game Commission of the State of Missouri before the



North American Wildlife Conference in 1945, published by the National Wildlife Federation. This Director is Mr. Mel O. Steen, and I quote: "If you would know the true story of Americans, their wildlife and their land, look first at history. . . Look at history, and you will see nation after nation march across its pages to rise and flourish on the rape of a fertile land, and to pass on into national decay or oblivion with the depletion of that fertility."

He concludes his speech: "America, you go the way all men have gone. You are a living symbol of the truth, that history repeats itself. You are not young, you are not strong, you are not wise, you only dream these things. You live an old, deceitful dream, that blinds your eye against the truth, that leads you down Disaster Road!"

The first thing I would like to consider is nesting during the shooting season.

Mr. Chairman, we would like to introduce a pamphlet which we will call Exhibit A. We would like to have this in the record. This pamphlet is a reprint from "California Fish and Game" of October, 1952, and is entitled, "Life History and Productivity of a Population of Western Mourning Doves," by John B. Cowan. The study was financed, at least partly, by the Department of Fish and Game, and even now the pamphlet is on sale by the Department.

It should be noted that these words appear on page 514: "Since the hunting season begins on September 1st, each year, it is significant in management to note the percentage of young in the nest after this date. This is 10.8 per cent of all broods attempted."

Also, the record should show that on page 521 appear these references: "1. H. E. McClure - 'Ecology and Management of the Mourning Dove in Cass County, Iowa.' (McClure found 21.8 per cent nesting after September 1st.) 2. G. C. Moore and A. M. Pearson - 'Mourning Dove in Alabama.' (Found 33 per cent nesting after September 1st.)"



Attention is invited to the above as significant biological data -- meticulously avoided by the Fish and Game Department and the Commission and their biologists in the same manner that these agencies have neglected to consider pertinent facts in the so-called Predator Control Programs, shooting of does and fawns. These policies are at the expense of the people and at the expense of the resource. This is the study I would like to present as Exhibit A.

The second item I would like to consider is the matter of what dove hunting, dove shooting is doing to the sport of hunting. For the record, we would like to submit what we will call Exhibit B, which contains, on the first page, a letter from a Sacramento paper, from a farmer, who says, "Never again will they (dove hunters) be allowed to shoot on our property. We tried to be good sports. From now on, off they will go, or they will be arrested."

Now, letters of similar character have appeared in all parts of the state, each one the symbol of more posted land.

The photograph on the other page was taken near my ranch house. Several boxes of shells were used next to a "No Hunting" sign, and on the highway right of way.

Exhibit C is also offered for the record. This contains an article by Rolla Williams, sports writer for the San Diego Union, describing his El Centro dove hunt. He states, "Some bagged quail, woodpeckers and meadowlarks. Others pegged shot at grapefruit." We point out that quail was out of season, and the killing of protected migratory songbirds is a federal offense at any time.

If a writer for the public press has so little regard for the natural resources of his country as to consider such dereliction of the law as great fun, what should we expect of his readers, especially youngsters?

Instances such as this led a Coachella Valley rancher to bitterly

remark, "Dove season is organized juvenile delinquency sponsored by the state."

On the other page of Exhibit C is a photo showing a mess of litter, among which are seen dead doves, roadrunners, beer cans and a demolished "No Hunting" sign.

Sportsmen who support dove protection say that dove shooting is killing hunting. They say this because doves, in most cases, are birds of the farmer's dooryard, and their killing is consummated upon his doorstep. What could anyone expect would happen to public relations for this sport?

We would quote, for the record, an extract from a letter by Claus J. Murie, President of the Wilderness Society, a national organization. He has been honored by the Izaak Walton League as "Mr. Outdoorsman" himself. As many of you know, the Wilderness Society publishes "The Living Wilderness", a magazine connected with the preservation of the wilderness. He writes: "I believe dove protection is a worthy step, and even in the interest of the sportsman, himself, he who would keep his field sport on a high plane." This statement must not be lightly dismissed. Trespassing, property damage, livestock destruction, game law violations are on the increase, and citizens are concerned about what constitutes a breakdown in law and order.

The key to the survival of hunting is in the farmer's pocket.

Ladies and gentlemen, I might recite an instance in our valley this year in which a troubled rancher called the sheriff to remove a trespass violator. The sheriff's office advised him that some people of Indio liked these people to come into the valley because they made money out of them, and he refused to come out.

Is the shooting of nesting birds lowering the quality of breeding stock? Mr. J. R. Beers, Game Manager for the Department of Fish and Game, in November, 1956, "Outdoor California", stated: "Management of



Wildlife is nothing more than applying the same principles of animal husbandry to game resources that a successful rancher applies."

We ask the question: could a rancher who raises squabs expect better than culls and sickly runts if he bombarded his flocks with a shotgun from before sunrise to sunset during an important part of their nesting cycle?

Doves are dying of a disease called trichomoniasis. A principle of animal husbandry states that maximum immunity to disease is not reached until full maturity. Many thousands of doves, not yet mature, whose parents are shot, are able to make their way, but succumb to diseases they would resist if mature. Others enter the flocks as culls and runts.

A principle of immunology states that virulence of organisms is increased by passing to a susceptible host. The organism that causes trichomoniasis is found as a harmless parasite in healthy pigeons, doves, turkeys, and so forth. They are carriers. But the immature birds die and produce more virulent strains of the disease organism. So, by shooting nesting birds, we are killing many more thousands by increasing their susceptibility to disease.

We have been advised by the Department of Fish and Game that sick doves are now being fed medicated pills. The principle upon which they seem to be operating is to cure them of diseases so they can shoot them in the season, in order to produce more runts and culls to which pills can afterward be fed.

That is the end of my presentation, Mr. Chairman and members of the Committee. I would now like to present Dr. Edmund C. Jaeger, a leading authority on wildlife of arid regions of the United States, for thirty years head of the Zoology Department of Riverside City College. He is the author of eleven books on biological subjects, published by leading American publishers. He is Curator of Plants,



Riverside Municipal Museum. I take great pleasure in introducing Dr. Edmund C. Jaeger.

DR. EDMUND C. JAEGER, RIVERSIDE

Members of the Committee, and ladies and gentlemen of the audience, as a naturalist and long-time teacher of the biological sciences, I am constantly in the field, observing and collecting biological material and information. It may be of significant record that I have spent on an average of at least two nights out of every seven in my sleeping bag during the last fifty years. My wide travels during these many years brought me constantly in contact with great numbers of various forms of wildlife, as well as ranchers, farmers and hunters. Perhaps some of my observations and resulting conclusions may be of interest at this hearing on mourning dove protection.

It is my observation that the dove population has, as a whole, decreased during the recent years. Even so long ago as the 1920's, that authentic and able student of wildlife, Dr. Joseph Grinnell, of the Museum of Vertebrate Zoology at the University of California, recorded this decrease in his book, "The Game Birds of California," and there is no reason to believe that dove populations have since increased. This is because doves have had to face, first, the increasing efficiency of modern weapons; second, the more rapid means of travel open to hunters to dove habitats; and, third, the excessive shooting.

The number of hunters in the field every year is simply enormous, and as the human population increases by leaps and bounds, especially in our cities -- the number goes up at a surprising and significant rate -- no one really knows how great the number of dove hunters is. Sports writers, hoping to influence legislators, have placed the number as high as 500,000; others, more conservative, have given us a figure as low as 150,000. A mean between these may be more correct.

If most of these take a bag limit from one to several times during

the season, which seems reasonable, the number of birds destroyed runs into many millions. This destruction does have its effect. You just do not get increases in population by killing birds in such quantities, especially when the areas of favorable nesting sites are being continually lessened by agricultural and urban developments.

We do not know how many doves are shot, for the simple reason that there are great numbers of wounded that are never retrieved and counted. More are also tossed aside so as not to be evidence against a hunter who exceeds the legal limit. Then there are the great number of birds taken above the legal limit that are taken home undetected; how many, we can only guess.

But news items such as I saw in yesterday's paper help us in our estimation. In Judge Anderson's court, in Blythe, James Hill, of Torrance, paid a fine of \$500 for possessing 113 doves over the legal limit. And James Sayer, of Van Nuys, paid \$200 for having 43 doves above the limit. I take this from the Riverside Daily Enterprise-Press. These were just two men who got caught.

Among the other dove hunters who were in court that day, there were some who, beside killing doves, had shot quail out of season, and also ducks.

Parenthetically, I may say that it is most unfortunate, but I know from personal experience, and from the testimony of many ranchers, that the number of hunters, especially dove hunters, who flaunt the law in the manner such as I have above mentioned, is legion. They evidence a great and often total disregard for the rights and feelings of landowners and those who believe in and practice conservation of our natural resources. No wonder we see more and more areas posted against hunting. And the number of such signs will keep on increasing.

There are those who say that the number of birds shot each year is substantially the same, that it is correct to assume that the dove

is holding his own. This is a specious and a grievously erroneous conclusion, because of the continuous, year-by-year increase in the number of hunters. The so-called "dove harvest" may be the same, but the reservoir of remaining healthy birds may actually be less.

It is very difficult for many of us to think of the western mourning dove as a game bird, in the true sense, any more than we consider a robin or a woodpecker as a game bird. Just because doves make a good target, and often an easy target, certainly does not justify their inclusion in the category of game birds.

Because of their habits, it is easy to take the birds at a disadvantage. The so-called hunters, of whom there are too many, often shoot doves down during the morning or even when, on hot days, they come to the edges of ponds, canals or streams to drink. Such shooting requires little skill, and is the poorest kind of sportsmanship, and the acme of disregard for fair play.

The mourning dove's weight of flesh is seldom more than a few ounces, so there is very little excuse for taking the bird for food. The value of a full bag of doves, as compared with the money spent for travel expense and ammunition, is almost nothing.

A principle we need much to recognize is that all creatures should -- as long as they do not interfere with others -- have the right to expect freedom from persecution and needless fear and misery. Animals we consider intellectually below us have some rights, too. Just because Man, with his weapons of offense, is stronger and more cunning, and often more devilish, is no excuse for his bringing needless suffering to the lives of his sentient animal neighbors.

There are those who argue that man is fundamentally and naturally a predator. Yes, so he was. So, yet, was primitive man, but in desperate need of food. This need for predation in America is a thing of the past. Due to man's modern ingenuity, the securing of adequate food



is a fairly easy procedure.

MR. THOMAS: Would you restate your recommendations to this Committee again? What do you recommend that we do?

DR. JAEGER: My recommendation is that the dove be taken off the list of game birds.

MR. THOMAS: Would you say that cutting the season down, shortening it tremendously, would help?

DR. JAEGER: I don't know exactly how much it would help.

MR. THOMAS: Say we cut the season to half of what it is today.

DR. JAEGER: It would certainly help. Just how much it would help, I don't know. Putting the season farther on, cutting it in half, as you say, if it were put farther on, it certainly would not interfere as much with nesting doves.

MR. ALLEN: Dr. Jaeger, you read in one passage of your statement that the urban development, plus the agricultural development, had curtailed the doves, had almost driven them out of the urban areas.

In 1924, when I was the engineer of record on the Sunset Golf Course, we had 1150 acres out in Baldwin Hills. We had a considerable number of doves. That is now all apartment houses, a community, with single residential units, plus the big May Company development, and yet I dare say we have a greater dove population in that urban area than I ever observed in all the time we had the wide, open spaces out there. So your mourning dove does survive in urban surroundings.

DR. JAEGER: It does, yes.

MR. ALLEN: And, of course, the principal enemy of the dove in that urban area, naturally, is the domesticated cat.

MR. JAEGER: Yes.

MR. ALLEN: You're not driving this dove into extinction.

DR. JAEGER: No, not driving it into extinction. I didn't say that.

MR. ALLEN: Unlike the quail. Of course, the quail has moved out of that area, but the mourning dove has increased rather than decreased in the urban areas.

DR. JAEGER: Well, I will say this, that I do know that the dove is a nester, and it does live in urban areas, but it doesn't live in all urban areas. Then, too, I take it from the report that we had at the meeting of the Desert Protective Council -- from the fish and game men -- that the cutting down of mesquite and clearing of land in the Imperial Valley was very much cutting down the nesting places for the dove, and, therefore, they could expect a decrease in the doves in that area.

Then, too, as some person suggested to me -- and I think it's a good suggestion -- it may be that a lot of these doves that are seen in urban areas (I know it's true in Riverside) are not the mourning dove but the Chinese dove, a dove that has been introduced (and I think it's a very fine introduction) and has been increasing and finding a very good home in urban areas. I think that must be taken into account.

MR. ALLEN: We have both, but the mourning dove is predominant in one portion of my district, and the Chinese dove is predominant in the other section.

CHAIRMAN BELOTTI: Thank you, Dr. Jaeger.

The next witness, Dr. Weber?

DR. WEBER: Mr. Chairman, I would like now to introduce Mr. Obed E. Smelser, a naturalist of San Bernardino, where he gives time to coaching school classes and youth group leaders in nature study, in connection with field hikes in Warm Creek Wildlife Refuge. He spent six years in the wild, from 1924 to 1930, in observation and experiment on behavioral relationships between various forms of wild life of the upper Sonoran life zone of Southern California, between wild animals and domestic animals, and between wild animals and humans. Mr. Smelser.



MR. OBED E. SMELSER, SAN BERNARDINO

I hereby submit for the record the following facts about mourning dove nesting time.

Mourning doves still have helpless young in the nest in California in the hunting season, which begins September 1st. That is known conclusively. Long ago, in 1928, my own observations confirmed this as to southern California, on the west side of the Great Divide. I have not made observations on the desert side.

John B. Cowan's study -- published in the California Department of Fish and Game Journal, October, 1952, page 511 -- found young in the nest in the north central part of the Sacramento Valley as late as September 22nd. The nestlings are doomed to slow death by thirst and starvation if even one of the parents is shot. When the mourning dove is hatched, it must attain more than half its adult weight in 11 to 14 days. This rapidity of growth demands such assiduous feeding that a single parent is inadequate to the task.

Moore and Pearson, in their 1941 study for the Alabama Department of Conservation, agree with me in this, stating it is improbable that a nestling will succeed if either parent is killed. The conclusion in the Keeler study of the mourning dove, in 1948 through '52, made, again, for the Alabama Department of Conservation, was (you will find it on pages 3 and 4) that hunting seasons set in September and the first half of October were detrimental to the dove population, because nesting activity is still in progress.

Now, some pertinent evidence. In northern Alabama, with the latitude of southern California, it was found that in the early September hunting, more than one-third of the adult mourning doves killed left nestlings to perish. This is in the 1941 study made by Moore and Pearson for the Alabama Department of Conservation.

In Cass County, Iowa, with a latitude similar to that of the



northern part of California, a 1943 study by H. Elliott McClure, of Iowa State College, showed young on the nest until mid-October; 21.9 per cent were still on the nest after September 1st, which is when the California dove-killing season starts. In Iowa there is no such season, the people of the state refusing to turn their doves over to the hunters.

Wallace MacGregor, a game manager, in the California Department of Fish and Game publication, "Outdoor California", February of 1957, page 11, alleges that in our state less than 1/2 of 1 per cent of the young are being produced in September, during the hunting season. He claims some 1956 California study made it no more than that. He produced no evidence as to what this study was, or by whom it was made, so we can make no evaluation of the bias of those authorizing this supposed study, or of their economic control of the person making the study.

There is a reason why no one in the government of California should accept such a claim as MacGregor's without subjecting it to the rules of evidence, including those involving the credibility of the witness. The reason is this, that officials of the Department of Fish and Game should be sharply distinguished from reputable scientists whom they sometimes employ. They have openly given up all pretense of representing the people of this state, or the interests of the people. Instead, they have openly constituted themselves a pressure group in favor of the small, destructive minority, the hunters who are less than 5 per cent of the population of this state. Ninety-five of every hundred of us will have no part in the so-called sport of hunting.

The MacGregor article, in line with the consistent policy of the officials of the Department, gives no consideration to the 95 per cent who, by our actions, show that we prefer our wildlife left alive. His article is, frankly, an example of pressure toward continuing and increasing the destruction of our doves. Page 3, column 1.

In comparison with MacGregor's allegation of 1/2 of 1 per cent

of young doves being produced in September, consider the intensive Willow Ponds area study in the Sacramento Valley in 1948, 1949, 1950, made by John B. Cowan of the Museum of Vertebrate Zoology of the University of California, published in the California Fish and Game Journal, October, 1952, page 514. This showed that 10.8 per cent of all mourning dove broods attempted there were in progress after the opening of the dove season.

Even though there should be a small percentage of young doomed to die that hunters may have fun killing the parents, as long as there is any percentage at all, the continuation of this so-called sport is indefensible.

J. W. Phillpott, central California sportsman, admitted that doves nest every month of the year in this state.

I repeat, we who are in the vast majority show by our action in refraining from dove-hunting that we regard it as indefensible.

Now, do you have any questions, gentlemen?

MR. THOMAS: Have you read all of the Fish and Game Department's reports on doves?

MR. SMELSER: All those that I have in my library, and I have about that many of them I've read.

MR. THOMAS: Would you say that the Department has done sufficient research to know anything about doves?

MR. SMELSER: I would say that when you speak of the Department, you're speaking of two entirely different things. You're speaking of officials who put out official policies, and you speak sometimes of scientists who have been hired by them, who make studies, studies which we all know about, and which are continually disregarded by the officials of the Department of Fish and Game. So you cannot speak in terms of one thing in the Department.

MR. THOMAS: In other words, this MacGregor report, which I have



read very, very attentatively -- I assume you don't agree with this report?

MR. SMELSER: Was that in February?

MR. THOMAS: Yes.

MR. SMELSER: Certainly, I don't agree with it. I disagree with MacGregor entirely, and I have just given you evidence to show what was the matter with Mr. MacGregor.

MR. THOMAS: Do you agree with this statement? He says, "Since over 33 per cent are unretrieved and lost, or maimed, the dove harvest causes a shameful waste of a valuable resource."

MR. SMELSER: I would agree with that statement because it is so. We who live in the out-of-doors and have to go over the places where the hunters have left -- we know what is going on, and it is a shameful waste of a resource. It's a shameful bit of cruelty, too, and there's no use denying it.

MR. ERWIN: I'd like to make one or two observations, Mr. Smelser.

In our area -- and I'm talking of Los Angeles County -- it is impossible now to discharge a firearm, as you know. Practically all of our doves are being destroyed by the crows. The crows are coming in now and nesting. If you have a shade tree, they nest in the shade tree and you just can't possibly get rid of them. You can't shoot them. I used to shoot them when they'd come in.

I have talked with the Audubon Society in Whittier. I am a member of it. I think they are doing a wonderful, wonderful job, but there is nothing we can do about it any more to protect our doves. The worst predator we have in the State of California -- even worse than the hunter -- is the crow.

And the house cats are coming in. Everybody wants to go and throw their house cats where there is a little vacant land. I used to be able to shoot them or destroy them; now I have to try to catch

them and have the pound take them, and the pound doesn't want to come out to take them. We have that problem, that the cats climb in the trees and eat the doves. And they'll do it; they're starving. So there is another example of a very bad situation we have.

Now, what are we going to do about Mexico? The doves migrate down into Mexico, and I know that hunters are going there. You know what the limit is -- it's double what the limit is here. So the doves are going out of our state and we're gradually closing the state.

I'm not worried about what is going to happen here. I'm worried about protecting them. How are we going to protect them? There isn't hardly any area in Los Angeles County any more that isn't being closed; we're all closed up so we don't have shooting there at all.

I am sympathetic with the problem of the sportsmen. They like to get outdoors. I have some land, myself, and I know I had a lot of trouble last year because I didn't post it. I'm posting it this year. The sportsmen broke down my fences and just raised Cain. We need some education along that line.

But the worst predator in Los Angeles County is not the sportsman any more because he can't shoot. I dare not discharge a firearm because I'd be turned in by the neighbors -- they'd scream their heads off, and I'd be turned in to the sheriff right away.

I have seen literally dozens and dozens of the Malayan dove. They came from the Malayan states -- the Malayan dove, or the Chinese dove, as you call them. They have a longer tail, are somewhat larger. They do mate with the mourning dove; we've seen it. We have both of them in there but we're not shooting them any more. The predators are killing them wholesale, and what are we going to do about it? That's what I want to know.

They have no game birds in Ireland, England or Scotland, because the crows are there by the hundreds of millions. There are a hundred



crows for every Irishman in Ireland, and no game birds any more because the crows have taken the country over, and if we don't do something about crows -- the predators here -- we'll have no game hunting here, either.

CHAIRMAN BELOTTI: We'll have to watch our time on this. Let's not get to the point where we take up all our time and get no results.

MR. SMELSER: In the matter of taking time, you must realize that people like myself have taken a lot of time to come a long way in order to get somewhere with this particular problem. As far as I'm concerned, as long as I took that many hours to come and will take hours to go back again, I see nothing wrong with taking a little time in order to settle this instead of refraining from settling it in order to save a few minutes of time.

MR. THOMAS: What would you do as to the crow problem that he has?

MR. SMELSER: In the first place I would call your attention to the fact that the problem isn't as great as represented. He was making a comparison, you notice, between the predation done on his doves by crows and the predation done on his doves by hunters, and saying that the crows were the worst. Of course, he admitted, himself, that the hunters aren't permitted to shoot there, so no matter how little the predation done by the crows it will be more than the zero amount done by the hunters, and that means nothing, therefore.

The fact is that the crows and mourning doves had been getting along on this continent for a million years before the white man ever set his foot here. When the white man first came, the doves had enormously greater numbers than now, without anyone's bothering to kill the crows. The same thing goes anywhere in the out-of-doors. The one destructive factor that we can control is the factor of unnecessary killing on our part. And you won't have to worry -- and that has been my long experience -- about the necessary killing being

done by other native fauna. And, by fauna, I include the avifauna -- that is, birds, in case anyone doesn't understand; I don't want to talk over your heads.

Now, did that answer that question? Leave the crows alone. You'll still have your doves. Leave the hunters alone and in due time you won't

I am not speaking as a man who has not been in the outdoors. I have spent many years in it. Let me give you an exhibit here. Here is a map of San Diego County. Will you look there where I marked that? You will see my name as one of the places on that map. My name has been there a third of a century. I have land there, and have had, and we know from experience -- people such as I am, who are landowners -- exactly what goes on in this business. We know what the hunters are doing because we are there when they are there, and we're there after they are gone, and we're there when the crows are there, and we don't worry about the crows being the predators.

MR. THOMAS: I don't seem to follow your reasoning. Are you reprimanding the sportsmen for the unsportsmanlike manner in which they take doves, or are you advocating the elimination of taking doves because they are becoming extinct?

MR. SMELSER: You mean I must take one choice between those two? I choose both. I will advocate the stopping of dove hunting entirely in this state. And, of course, I am reprimanding the hunters because I happen to be a landowner where the hunters go and we hate those fellows, we landowners who are there when the hunting goes on.

MR. THOMAS: I'm trying to pinpoint the issue before us. What is the particular, specific issue before us?

MR. SMELSER: The particular issue before us is whether or not we should continue dove hunting in this state, and I say we should not. I speak as a naturalist and as a landowner who owns land and has owned land for a long time where the hunting goes on.



MR. ERWIN: The one question that I'm interested in, Mr. Smelser, is: what are we going to do about Mexico in connection with migratory birds? If we're going to cut out hunting here then we're going to have an increase of thousands and thousands of our hunters going into Mexico and killing double the limit that they kill here.

MR. SMELSER: I suppose that the way to approach Mexico would be through getting somebody in the U. S. Fish and Wildlife Service to see that the Secretary of the Interior does something better than give away, as McKay did, and begin seeing to it that a treaty is made with Mexico in that matter.

That's a political matter. It's nothing that a naturalist such as I can give any advice on, but if I had to give advice, as a citizen, it would be to approach it from that angle. And, incidentally, that map isn't put in as an exhibit. I need my map back.

CHAIRMAN BELOTTI: All right, Dr. Weber. You had one more witness?

DR. WEBER: We'll use Mr. Gander's time for rebuttal.

CHAIRMAN BELOTTI: All right; fine; thank you very much.

Now, the first one that I have down here is the Izaak Walton Club of California, Mr. Rhoads.

O. D. RHOADS, IZAAK WALTON LEAGUE, WHITTIER

When we found out about this meeting, it didn't give us time to hold a meeting of the Board of Directors for all of the Izaak Walton Clubs in the State of California. I am on the Legislative Committee for that state group, but we have not had a meeting so I'm not going to say here that I am representing all the clubs of California. I am representing Ted McFarland, the president of the club, and my own Whittier club.

We are definitely against this motion for the protection of doves. We feel that the Fish and Game Department and the Fish and Game Commission, prompted by you gentlemen, hired the biologists and the experts

who should know these doves. Now, it is our opinion that if they think we should outlaw the shooting of doves, or deer, or anything else that if we are going to pay them big salaries then we'd better back them in whatever their request is, which I believe is against this motion.

MR. THOMAS: In other words, you feel we should follow any recommendations made by the Department or the Commission?

MR. RHOADS: As long as you feel that that is right.

MR. THOMAS: Are you just limiting yourself to doves, or anything?

MR. RHOADS: Anything.

MR. THOMAS: I'm going to use that evidence later.

CHAIRMAN BELOTTI: Mr. Val Colby, of the Bard-Winterhaven Rod and Gun Club.

J. VAL COLBY, BARD-WINTERHAVEN ROD AND GUN CLUB

Mr. Chairman, members of the Interim Committee, and fellow sportsmen: I intend to give this very brief report without playing to the emotions of any particular group. I represent the Bard-Winterhaven Rod and Gun Club on the lower Colorado River in eastern Imperial County. This club has been in continuous operation, in active existence since 1946, with an average yearly membership of about 50.

At a regular meeting held September 26th, 1957, our members expressed some concern and a great deal of contempt for this Assembly Bill 2307. I am here to express their sincere and unalterable opposition to this bill. We are certain that this and other foolish bills of the same measure would never receive any serious attention except for the simple fact that it is so much easier to impress the public with whims and emotions than with common sense and good reason.

We intend to use every means at our command, both locally and in cooperation with other conservation clubs, to put this bill beyond the reach of its dickie-bird office, in the waste basket.



With the great and rapid increase of agricultural acreage going into cultivation, the dove population can do nothing but increase by leaps and bounds. We, therefore, can see no reason for taking the mourning dove off the game bird list.

This report is respectfully submitted by the Bard-Winterhaven Rod and Gun Club.

MR. THOMAS: By the way, how many members have you in that club?

MR. COLBY: Fifty.

MR. THOMAS: Does your club follow all the recommendations made by the Department or the Commission?

MR. COLBY: Yes, we do.

MR. THOMAS: You have always followed them?

MR. COLBY: Yes, just as closely as we possibly can.

MR. THOMAS: And you think their recommendations are worthy of consideration?

MR. COLBY: I certainly do. They have worked very well in southern California, the area in which I am living.

MR. ANDERSON: Mr. Colby, along with the rest of us, you heard Dr. Weber's statement that from 10 to 33 per cent nest after the September 1 date, when the season opens. Do you think that should be considered in connection with setting of seasons, or length of time, or anything?

MR. COLBY: I could only say this, that within a very few days after the season opens, the migration of mourning doves begins, with great flocks going south from the entire length of California, directly south into Mexico. They come through our area in Imperial County in great numbers. The white wing, which, of course, is a pigeon, more or less, drifts through there and generally is gone by the first of September. There are very few late-nesting doves; they are moving south by that time.

EDWARD ROSSEZ, PRESIDENT, CALIFORNIA WILDLIFE FEDERATION

The Federation is on record as opposing taking the dove off the game bird list.

The mourning dove is considered as a migratory bird. They have the protection of the U. S. Fish and Wildlife Service; they set the framework of the seasons and the bag limits. They take their word from their biologists as to whether the population is increasing or decreasing. This year they allowed a longer season in that framework.

The State Fish and Game Commission sets the season for California. They take and set it within that framework. This year they did not take the extra days that were allotted for hunting; they took the 30 days as previously.

So, with that protection, there you have two separate bodies to consider the dove population and the hunter pressure.

Also, the dove is one of the birds that has been able to compete with the increase in population in the various states. I remember, as a youngster, when we did not have the people in the state -- we seemed to have just as many doves as we have now.

Now, speaking for the economics of the dove hunters, there are quite a few communities that depend upon the dove hunter to come in and help the economy of their sections. Also, my group -- and, I believe, all the rest of the sportsmen's groups -- does not condone these hunters who have been spoken of, who do not have regard for the property owner or the laws, or those who are the game hogs. Any time we know of those individuals, we take care of them by reporting them for game violations or by kicking them out of our clubs.

MR. THOMAS: Since this is a controversial issue, and a very controversial one, do you think we should eliminate the taking of doves for two years, on a trial basis, and then have the Department make a complete survey of the situation so that all of the people would know,



actually, what the dove problems are?

MR. ROSSEZ: Well, I think you have it set up already; I don't think you need the additional machinery. The Fish and Game Commission can close the season, and you can find out.

MR. THOMAS: We can take that away from them if we want it.

MR. ROSSEZ: Yes, you could, but I don't think it's necessary. If they thought that the dove population needed protection, they could do that, and I'm sure the sportsmen's clubs would be the first to advocate the season being cut down or closed for a number of years, so the population could come back in case it was depleted by reason of disease or any other cause.

MR. ALLEN: Because of the migratory nature of these doves, if you closed the California season for a year or two years or three years, wouldn't the net result be that most of the members of your clubs would go over into Mexico where the bag limit is much larger? And the resultant shooting and the resultant take of those birds would be a great deal more than if we leave the situation at status quo.

MR. ROSSEZ: That is correct. Quite a number of hunters come from Los Angeles to the Colorado River to hunt in Imperial County and so forth. If you close California, it's only a jump over the river and they'll be in Arizona and hunt there, and also in Mexico. And they'll go over to the Nevada side, so California will lose that money.

CHAIRMAN BELOTTI: Thank you, Mr. Rossez. Perhaps Mr. Glading has a statement with reference to this subject relating to doves, and I think this is the time that you should present that.

BEN GLADING, CHIEF OF GAME MANAGEMENT, DEPARTMENT OF FISH & GAME

The mourning dove is one of the most important game birds in California. Under existing regulations it provides the highest sustained take of any game species in the state. All evidence indicates that doves are holding their own under present regulations. The fact

that the reported dove take in the state for the last ten years has consistently been about 2-1/2 million birds a year is good evidence that hunting is not reducing our dove population.

Under provisions of the Migratory Bird Treaty, the U. S. Fish and Wildlife Service has the primary responsibility for setting seasons and bag limits for doves in this country. The Service sets up a general framework, and allows the states to select their seasons within that framework. The California Fish and Game Commission has set a 28 to 30-day conservative season on doves in recent years, although under the Fish and Wildlife regulations we could have had a 45-day season.

I want to say right at this point that whenever a species -- or a portion of a species -- of any bird or animal is threatened with over-harvest the Fish and Game Commission is going to be the first one to take steps against it, and I offer in evidence a recent action of the Commission with respect to the Great Basin-Canada goose.

This bird was in jeopardy. The Fish and Wildlife Service realized it, and set the limit down to one bird. The California Fish and Game Commission tried to get neighboring states to go along, to reduce it further to zero, but couldn't. They were not successful in spite of that.

The sportsmen of the state, and the Commission, decided that since this bird was in jeopardy that the limit would be closed on the areas in the state in which this bird winters.

The Fish and Wildlife Service official in charge of federal dove work has stated, "The continental dove population is at a satisfactory high figure. This is shown by recent nationwide call counts. Consequently, we feel the population (of doves) can support present hunting pressure and probably additional hunting pressure".

Further evidence that hunting is not hurting our dove population is provided by band returns. The rate of band return for doves is very



low, about 3-1/2 per cent as compared with 18 per cent for waterfowl. And waterfowl, you recall, are taking a sustained yield, too. In the case of some species of waterfowl -- mallards, for instance -- the band return is as high as 25 per cent.

As further evidence that the harvest of doves is extremely low, while doves lay only two eggs per nesting, they may nest as many as six times in one season and thus produce as many young each year as quail.

Probably the most important factor in maintaining high dove populations is the fact that the dove is adaptable to such a wide range of habitat. It is found nesting in almost every type of habitat in the state, from the cities to the deserts, and is only absent in the high mountain and heavily timbered areas.

Among the arguments advanced by some groups for removal of the dove from the game bird list are:

"1. Doves are of economic value to farmers in the control of weeds, and are so considered by 20 states and Canada, where they are fully protected."

The answer to this is: Doves eat only a few kinds of weed seeds, and there is no case where they have eliminated weed seeds from any feeding area. A Department of Fish and Game analysis of 102 dove crops, obtained from five study areas throughout the state, revealed that only four of the 693 species listed in "Weeds of California" made up an important proportion of the dove crop contents. None of these four are classified as primary or secondary noxious weeds under the California seed law.

Farmers in states where doves are fully protected have just as much trouble with weeds as those in states where doves are legally hunted. States which do not have an open season on doves are northern states, where most of the doves leave before September 1st, the earliest date any dove season may begin.

Another argument advanced by the proponents of dove protection is:

"2. Doves are not qualified as game birds in that they lay but two eggs, the young are helpless, sexes undistinguishable, and too many are required to be worthwhile as food."

The answer to this is that doves lay only two eggs per nesting, but may nest as many as six times a season, and thus produce as many young as quail, pheasants or other upland game birds. In addition, adult doves have a longer life span than do quail and other game birds, thus again compensating for their lower egg production per nesting.

Further, both sexes of quail, pigeons, ducks and other game birds are hunted. Doves are about the same size as quail and are highly prized as very tasty eating.

Another argument: "3. Nesting continues through and beyond the shooting season, with the result that millions of young starve in the nest. Since over 33 per cent are unretrieved and lost or maimed, the dove 'harvest' causes a shameful waste of a valuable resource."

There were several figures given by previous witnesses with respect to the percentage of doves that are produced after September 1st. These quotations come from reputable researchers, and I want to say right here that Mr. MacGregor (who was slightly impugned this morning) is one of these reputable researchers. They make their studies on small study areas, or as a result of study area samples taken throughout the whole state or area in which they are concerned. Some of them -- in the case of Mr. Cowan -- were taken from fairly small areas. What Mr. Cowan found is certainly representative of Gray Lodge Refuge, where his studies were done.

I want to say right here that Mr. Cowan is a valued employee of the Department of Fish and Game. His works referred to were not financed by the Department of Fish and Game. However, even though we do not repudiate them, we think they were fine studies. Those studies



were done by Mr. Cowan as part of his work for a master's degree at the University of California. They were done on his own time. They were done with our sanction. We think the results are wholly admirable as far as Gray Lodge Refuge is concerned.

We also know that we could have moved ten miles off into the brush and come up with entirely different results. Right now we have a dove study going which is making sample studies in several areas in California, and the variation that you find in this one particular point is extremely startling. We have found that some of the highest areas, where nesting continues beyond September 1, tend to be areas of dove nesting concentration in protected areas.

Perhaps this will help to explain. We have some evidence at the present time that nesting success after September 1st is as great, or greater, than success before. Now, this is an apparent anomaly, I know, and our results are not conclusive to date, but what nests we have examined for success after September 1 indicate that the nesting success at this time is better than before. The only way we can explain it logically is that these doves are concentrated in protected areas and are not hunted. I give you that for what it is worth at the present time. The Department is continuing to work on this, and we hope to give you a definitive answer on it, but, with the few nests we have, better success is indicated.

Scientific studies in Florida, Texas and California show that a very small percentage of any season's young are produced in September. High natural mortality of the young birds makes it desirable to set the hunting seasons as close as possible to the time the dove population is at its annual peak, and that, of course, is a premise that we use in the harvest of all wildlife species. A Florida authority declares that this allows the harvest, primarily, of doves which would die, anyway, within 90 days.

A 1956 California study showed that less than one-half of 1 per cent of the young were produced in September during the hunting season. Here, again, that is a statewide survey; that is not a survey limited to one area.

The Department has studied areas where an even higher percentage of production is evident than was registered by Cowan, so we do not look on Mr. Cowan's findings as anything unusual. They represent just one isolated example, but on the basis of statewide sampling, where study areas at the present time are admittedly inadequate, the number of doves produced after September 1 is really negligible. Even then, the successes indicated seem to be higher than in doves produced before.

Wyoming and West Virginia hunters shot doves for the first time last season, and several midwestern states are giving serious consideration to similar action. There has been no great increase in dove numbers where no dove hunting is allowed, as compared to states where doves are legally hunted.

About three years ago, reports the U. S. Fish and Wildlife Service, Nebraska closed its season on doves because of pressure from garden clubs and other non-hunting organizations. Now the sportsmen realize the loss of their sport, and are seeking to restore the bird to the game list. It is my understanding that Nebraska is again opening its season on doves.

Although hunting no longer is a necessity to provide meat for the table for most Americans, increased leisure time and the stress of modern life make hunting and fishing increasingly important for recreation. A survey by the U. S. Fish and Wildlife Service in 1955 revealed that nearly ten million persons hunted small game in this country.

I want to add that, in California, doves were our most important, most valued small game species. From the number of people who hunt



them -- according to the postcard questionnaires that we have out -- it seems apparent, based on careful research and detailed statistics, that the mourning dove needs no such protection as that sought by certain individuals and groups. If sportsmen are aware of the facts as well as the threat to one of their favorite pastimes, perhaps reason can overcome emotion, and the mourning dove will remain what it is, California's top-ranking game bird.

MR. THOMAS: How many employees has the Department working on doves this year?

MR. GLADING: Since reports come in from game wardens as a part of their work, each and every game man is expected to supply what pertinent material he can, so we have many who spend a very small portion of their time on them.

MR. THOMAS: I mean: how many full-time men have you got in your Department?

MR. GLADING: Full time? Two men, sir.

MR. THOMAS: I'm quoting from a letter I received from a director. He had only two men working on the dove investigation in California, and then, in 1956, they added four more. So, have you got six men on doves?

MR. GLADING: No, sir. In California we have a federal aid study, a Pittman-Robertson study, on upland game birds, and what these fellows do varies from time to time.

MR. THOMAS: I was trying to get to the point of how much the Department is spending, and how much time was given to investigation of doves. That's what I want to know. I have all the reports from the Department, that is, all that the Department has on doves, nothing else, so I'm just trying to find out how much money is being spent and who paid for it, whether the federal government or the State Department of Fish and Game. And how much time is spent on doves?

MR. GLADING: I'd like to help answer that, Mr. Thomas. We have an upland game study that has the job of studying the life history and management of all species of upland game. This includes everything from quail, chukar partridge, pigeons, doves and grouse. The emphasis of these studies has varied from year to year.

Now, there are more men than two on this upland game study. Emphasis on the rest of it goes mostly to the chukar partridge, and it varies from time to time. At the present time there are two men, full time, on the dove study. Others spend part time at it, and as the seasonal load varies from one study to another, the men are moved over. In other words, if all the fellows are working on doves at the opening of chukar season, they check out chukar hunters.

MR. THOMAS: So you only have two men in the whole state working full time on doves?

MR. GLADING: At the present time, sir. But that could well change next month, as I indicated, because any men from this pool who are working on upland game could be used in that.

MR. THOMAS: Now, this thesis of Mr. Cowan's -- who wrote it for a master's degree at California -- who paid for the printing, do you know?

MR. GLADING: The California Department of Fish and Game.

MR. THOMAS: So the Department of Fish and Game took that thesis as its own work?

MR. GLADING: Not necessarily, sir. We act as a publishing agency on game matters for people working within the Department and without the Department.

MR. THOMAS: Has the Department taken this thesis and said "This is the Department's work, and we are hereby relying on the information that is in this thesis"?

MR. GLADING: We rely on that information as well as the information



of other published authors.

MR. THOMAS: I mean, has the Department accepted this as its publication on doves? That's what I mean.

MR. GLADING: No, sir. That is certainly not the last word on doves. It contains many true facts, but it is not the last recommendation on doves by a long way.

MR. THOMAS: It was paid for by the Fish and Game Department. I was just trying to get the connection of the two.

MR. GLADING: Well, sir, the fact that we paid for the publication of it doesn't necessarily mean endorsement, just as you can find many statements in the San Diego Union that I doubt are the editorial policy of that paper.

MR. THOMAS: Well, I mean it says here, "Fish and Game," "Department of Fish and Game, Volume 38, No. 4," and I'm assuming that is part of the Fish and Game Department's publications.

MR. GLADING: Yes, sir, it was published by us, but we do not necessarily endorse each and every statement in it as Commission policy.

MR. THOMAS: That is what I was trying to find out. Do you think there is no necessity for restricting the taking of doves?

MR. GLADING: Not at the present time, sir; absolutely not.

MR. ALLEN: Mr. Glading, I think you pointed up that Mr. Cowan made a study of a certain given area.

MR. GLADING: Yes, sir.

MR. ALLEN: Also, going through the Iowa State College report, which was a paper of similar purport, that was based entirely upon Cass County, Iowa. The upper counties, about the river valley, have wide, sweeping plains, in which quick freezes are not unknown at this particular time of year. And right over the hill from there, around Avoka and Council Bluffs, and down through that area, and the Pottawattomie area, you have the hot springs where you do have a great deal

of propagation of bird life in that community.

Isn't it a little bit dangerous for any student or any one person, or even members of this committee, to take an isolated study such as the Cowan Committee report, or that on the one section in Iowa, and try to draw a final conclusion from it?

MR. GLADING: It is extremely dangerous, and particularly dangerous in a state that is as varied as California is where we have far more varied habitats than you find in a uniform area such as the Midwest.

MR. THOMAS: You didn't give me a satisfactory answer to my original question. I was trying to find out how many man-hours were spent in California on doves by the Department. Who was paying the bill? Is it all by federal aid?

MR. GLADING: No, it's not all by federal aid. The two men whom I mentioned are on it presently, and the study that is supplying the manpower pool for the dove study, the upland game bird study, is paid for by federal aid. And, as you know, three-quarters of that money comes from the arms and ammunitions excise tax. It is federal money, and one-quarter is state funds.

However, in addition to that, these fellows do not rely entirely on their own observations. They use observations that are made according to standard techniques used by game wardens and game managers who, as a very small part of their duties, make dove observations. Those funds are generally supplied by Fish and Game conservation funds, but I am not in a position to give you an estimate of the total man-hours that are spent on doves in this state since I just don't know, because I don't know what portion of these men's time is spent on it. I don't think we have our reporting broken down that fine.

MR. THOMAS: Well, the information came to our committee in Sacramento that the Department has spent very little time, very little money, and hasn't done too much research on this subject.



In 1955 and '56 all of the reports show that was all done by federal aid, so I'm trying to find out how much time was spent by the Department.

MR. GLADING: Well, perhaps I can clarify that. The federal aid program is part of the Department's program. In other words, these men, while they are hired out of a special fund, are Department men. They are research men, they are all university graduates and, incidentally, I resent the attempt to impugn the reputation of any one of them, such as was made a little earlier.

But they are charged with the responsibility of reporting on doves. It has only been in very recent years that the Department has paid any attention to doves from a research standpoint, and in very recent years these fellows have been belittling the attempts and efforts of game wardens and others in the Department, as well as cooperators from outside of the Department, to get these facts together and at the same time to do what little field work they can.

MR. THOMAS: I was very much interested, because I often hear the statement made that the sportsmen are paying all the bills for research, and for the carrying on of the Department, and I appreciate your admitting the fact that the federal government spends a lot of money in California on fish and game matters.

MR. ERWIN: That is sportsmen's money, too.

MR. THOMAS: Yes.

MR. ERWIN: I'd like to ask Mr. Glading a couple of questions.

As a state becomes urbanized it becomes a closed area. In Los Angeles County, practically all of it is closed. Then that is a breeding ground and it's a home for migratory birds as they come down from the San Joaquin; as they are passing through there they can't be shot. They used to be shot by thousands of sportsmen, of course, who would go out in the evening, just a little way into the hills, and get

their limits of doves. Now, they can't do it. The only thing they can do is to go far afield.

As southern California becomes urbanized, and the ability to shoot is taken from the sportsmen's groups, do you think that the birds then will multiply over what they are doing now, or do you think it will just be the same, provided you can control the crows and the house cats?

MR. GLADING: Well, it's a kind of complicated question you ask me, Mr. Erwin. Actually, in some types of urbanization, a good dove nesting habitat is provided. Other types of urbanization do not provide it.

MR. ERWIN: Well, your canyons and your trees.

MR. GLADING: That's right. Generally speaking, with a new development, if it has taken bare raw land and has put trees and shrubs on it, can produce a better dove habitat. On the other hand, if you get a concrete jungle there, that is not going to produce dove habitat. But, generally speaking, the doves that we shoot are not affected in any large percentage by urbanization. They are affected far greater by changes in agriculture. Some of those may be to the advantage of doves and some of them may be to the disadvantage of doves. But, even away and beyond that, we are very fortunate in that the dove nests in an extreme variety of habitats.

The deserts of Nevada and Idaho supply many of our doves. The upper Sonora and foothill belt all around the state, and into the transition zone, in the lower forested zone, is the place where doves nest and, generally speaking, that land is either the same or improved as a result of some forestry practice for dove habitat as it has been. Some agriculture is to the advantage of doves; some is to the disadvantage of it. Generally speaking, agricultural development is to the advantage of doves.

MR. ERWIN: Yes, but when they migrate down, if you can't shoot



them in Los Angeles County, they go farther south and they go into Mexico. Has the Department done anything as far as the Mexican Government is concerned to cut down the limit? I understand that it is double our limit. I'm not sure. That is just hearsay. I never hunted in Mexico and I don't know.

MR. GLADING: Well, as pointed out earlier, the Department or the Commission has no legal right to negotiate with Mexico directly. That would come through the Fish and Wildlife, through the Secretary of the Interior, and by treaty, I would imagine. I don't know how treaties are formed but it's way up and beyond the state level.

We can certainly make representations on that matter to the proper authorities and we have, in the matter of the importation of doves from Mexico where we feel that importation limits, as set by the federal government, are too high. They do not fit our conditions and we feel they are too liberal, and are adding to the undesirable type of "game hoggism".

MR. ERWIN: Can they bring back a Mexican limit into the state, or just the limit set by the State of California?

MR. GLADING: You're getting a little out of my depth, Mr. Erwin. We have some patrol and law enforcement people here who could answer that question better. Perhaps Mr. Shannon.

MR. ERWIN: I think we should know. I think the committee would like to know if they can bring in the limit set by Mexico into the State of California.

MR. GLADING: Well, I would like to defer that question to the law enforcement people.

CHAIRMAN BELOTTI: Let Mr. Shannon answer that question.

MR. SHANNON: The Fish and Game regulations provide that only the limit that applies in California may be exported from Mexico. In other words, they may import only 10 doves, at one time.

MR. ERWIN: And they can shoot 20 in Mexico.

MR. SHANNON: They can shoot more, but can only bring in the legal limit into California.

MR. THOMAS: When can they bring in the limit?

MR. SHANNON: They can bring that in during the Mexican season.

MR. THOMAS: One more question: isn't Mexico a signatory to the Wildlife Treaty?

MR. SHANNON: That's right. That is, we have treaties with Mexico and Canada applying to doves and waterfowl.

MR. THOMAS: Do you think we should consult Mexico on these problems, which we often do?

MR. SHANNON: There is some of that and, of course, there are certain limits within which Mexico can operate and also Canada, and they are operating within those limits.

MR. THOMAS: It's a good idea to consult with Mexico.

MR. SHANNON: Yes, if the dove population were threatened, certainly it would be well to consult with Mexico if that is important in controlling the depleting population.

MR. ERWIN: Do you feel that the hunter population in Mexico has increased from California?

MR. SHANNON: I believe that in the last few years more hunters are hunting in Mexico.

MR. ERWIN: That has been my opinion, and I have heard quite a few of them say, "Well, we go down there because we can shoot 20." They have a big barbecue feast of them and then they bring back, as I understood, the 20, but you say just 10. When did you change that? Just this year?

MR. SHANNON: No, that regulation has been in effect for more than this year. I couldn't say exactly when it was passed, but it was in effect last year; how far beyond that, I couldn't say.



CHAIRMAN BELOTTI: Now before I call on the next witness, may I have a show of hands from those in the audience who would definitely like to testify before the committee on this matter?

I want to give everyone an opportunity to testify, especially those from this part of the state, because that's what we are here for. I may ask the committee to sit in here and go into a night session tonight. Since the Department is on, I see Mr. Kelly. Did you have a statement you'd like to make?

ANDY KELLY, PRESIDENT, FISH AND GAME COMMISSION

I have a very brief statement in defense of a rather maligned group this morning, and that means the hunters in general and the dove hunter in particular.

It occurs to me that these people are the only ones who have contributed directly and definitely to the protection of doves in California for 10, these many years. If it weren't for their license dollars, the Commission and the Department would not be able to put into the field the great group of wardens we have who are now enforcing the law as it has to do with seasons and bag limits, which has been the only progressive step made to protect this bird about which we are so concerned. I thought that should be cleared up.

CHAIRMAN BELOTTI: Thank you, Mr. Kelly.

R. E. HAZARD, FARMER, SAN DIEGO COUNTY

I heard the question raised a few minutes ago here about hunting in Mexico. I don't know the statistics he has about Alabama and the other place, but I do know about San Diego County. I have been farming and living in this county for forty years and in the Imperial Valley with half a dozen ranches.

As to Mexico, the fact is that there are more doves down there, and they don't need the California doves. I have a little place down there and it's on the edge of a mesquite forest, and the doves are

plentiful. The doves are here today and gone tomorrow. They are hunted one day on my ranch near Lake Hodges and the next day there are no doves. Last week we hunted them and the second week out, no doves. How many go to Mexico, nobody knows, but there are plenty of them down there. They don't have to call on the California doves; there is an unlimited amount of them there. Near my place there are a thousand acres of this mesquite where the doves nest and nobody gets after them.

I have been in the Valley for 40 years, hunting and contracting all over the Imperial Valley, and building highways, and there are more doves there now than we wish.

WARREN ENSIGN, SOUTHERN COUNCIL OF CONSERVATION CLUBS

Our Council represents 896 clubs and 76,000 members. I would like to make a brief statement on behalf of our members.

We are thoroughly familiar with the multiplication and breeding of doves, and with this information in mind, we strenuously uphold opposition to Assembly Bill 2307 for the following reasons:

Because of the prolific breeding traits of doves, in five years doves would become a terrible problem and nuisance.

In 1956, approximately 2,500,000 doves were killed. If this number were divided into pairs and were to raise 4 young each year, (and this allowing a high mortality) in five years we would have 25,000,000 doves. Add to this the production of the incident progeny, and the numbers would be staggering.

From the economic view, consider the amount of money that is spent annually on dove hunting alone for guns, shells, gasoline, oil, tires, travelers' motels, food, clothing and so forth. Should the source of revenue for these businesses be reduced?

If the take on doves can be 2,500,000 annually, it isn't likely that the dove will become extinct very soon.

Most important of all, the Fish and Game Department is in need of



revenue. Hunting licenses are being increased. Where is the incentive to buy a license if the game is going to be reduced? There are hundreds of people interested only in dove hunting; aren't they to be considered?

We urgently request that this bill be killed.

Regarding Mr. Hill, who violated the dove limit and has been fined \$500, the Southern Council has been requested by other clubs to ask that he be removed from his club. This is double jeopardy -- being fined and ostracized from his club by his fellow club members. I thank you.

CHAIRMAN BELOTTI: Thank you very much. Next I will call on Mr. Whittemore.

R. C. WHITTEMORE, PRESIDENT, COACHELLA VALLEY WILD GAME  
PROPAGATION CLUB

Mr. Chairman, members of the State Interim Committee on Fish and Game, ladies and gentlemen: the attached resolution which I will put before you has been adopted by the Coachella Valley Wild Game Propagation Club, in accordance with the vote of its 494 members at their last meeting held August 26, 1957, at the City Council Chambers in Coachella, California:

"RESOLUTION NO. 1105

"Whereas, It has been brought to the attention of members of the Coachella Valley Wild Game Propagation Club that there is a movement afoot to discontinue the hunting of doves in the State of California; and

"Whereas, The claims made by proponents of the said bill are in disagreement with the actual statistics compiled by the Dove Study Committee of the State Fish and Game Department; and

"Whereas, Members of the Coachella Valley Wild Game Propagation Club voted unanimously at their August meeting to lend wholehearted support of their 494 paid members, in good standing, to support a resolution from their club opposing the discontinuance of dove hunting; and

"Whereas, The members of the Coachella Valley Wild Game Propagation Club unanimously affirm the financial benefits to Coachella Valley merchants as a result of the spending of 5,000 hunters who came to Coachella Valley last year;

"NOW THEREFORE BE IT RESOLVED, That we recommend to the Interim

Committee of the State of California Legislature that they abandon the proposed measure, A. B. 2307, designed to do away with dove hunting in the State of California.

"Adopted October 1, 1957.

"Coachella Valley Wild Game Propagation Club."

Signed by R. C. Whittemore, President; Harold Couzens, Secretary.

CHAIRMAN BELOTTI: Thank you, Mr. Whittemore. Now, who is next?

MRS. HARRIET P. SNYDER, NATIONAL AUDUBON SOCIETY, SAN DIEGO BRANCH

I am a Californian, from one end of California to the other.

We are up in the San Joaquin Valley in the high Sierras; just got back last Saturday from four months there. On my way down I tried to check on the dove situation, coming down the east side of the San Joaquin Valley. You would be shocked at the number of doves I could count, they were so few; there were between 10 and 12. I drove, and I do not drive fast, and that is just one little item.

The other item is this: we are talking a great deal about the dove hunting, whether we should or shouldn't. Another question that I think it would be very wise for you men to bring up is this: where does man -- and I mean man's character -- go when he just goes out to shoot doves, merely to kill?

This summer I rode around the foothills and the mountains near the San Joaquin Valley, and you'd be shocked at the number of times that I have run into places where someone had just dumped a pile of doves. There were bodies strewn all around just like you would find tin cans. That kind of characteristic, for a Californian, is something that I think you men should do something about.

As far as preserving the doves, I think we'd better wake up and listen to the birds sing. They need protection as nothing else, as you will find out if you go out and wander around over the state as I have done.

CHAIRMAN BELOTTI: Thank you very much.



TOM CARMICHAEL, MEMBER, SAN DIEGO COUNTY FISH AND GAME COMMISSION  
AND DELEGATE TO THE SAN DIEGO COUNTY WILDLIFE FEDERATION

For many years I have been an outdoorsman. For the past twelve years I have been the Outdoor Editor for the San Diego Evening Tribune. I am a strong conservationist, and when I say "conservationist" I mean exactly that -- conservation.

There are lots of us who believe conservation is a method of restriction in the taking of anything. My idea of conservation is the proper utilization of any natural resources, and a dove, to my mind, is a natural resource. It is one of the members of our game family.

In some states there are laws against doves. For instance, in the state of West Virginia, it is illegal to shoot a dove because it is classified as a songbird and yet I can show you more birds right in San Diego, the city of San Diego, than I ever saw in the state of West Virginia.

As a sportsman, I have never yet shot a man's lock off his gate. I never have broken down a man's fence. I never have been refused permission on any man's land, to hunt, and I have never taken more than what I considered my share of game. If I didn't want the game I didn't take it. I have never piled up any game off on the side road or anything like that. I utilized that which I took.

With reference to spending money for dove protection or for any other protection, I, myself, am one of the first to fight for the continuance of good wildlife interests in San Diego, in southern California, or in the whole state of California.

I heard from one gentleman (he is a doctor, by the way) that our doves were suffering a disease. The sportsmen in San Diego immediately contacted the Department of Fish and Game and had the Department come down here with its biologists to examine this dove to find out what the disease was. When they found out what the disease was they gave

us an idea of what could be done to keep those birds from dying.

I am not familiar with the name of the disease but it was passed through drinking water, and the idea was that if we could cure, or give these birds some kind of a cure, they would discontinue the spreading of the disease. So, we in San Diego County, being sports-minded, also conservation-minded, furnished the money to buy the grain and the medicine to be given to those birds.

So, if you want to know who spends any money for conservation, I will say that San Diego County -- I'm not speaking for the state as a whole -- is foremost in any movement of conservation.

CHAIRMAN BELOTTI: Thank you.

MRS. ALEX GOSLEY, CORONA

I just want to say that there are people -- and I'm one of them -- who represent no special interest as far as making money is concerned. I have nothing to gain or lose, financially. However, I do work with children, in the Girl Scouts, doing nature work and I find that when you point out mourning doves to the children, and other birds, the mourning dove is very easy for them to identify, and it causes a great deal of concern to the children emotionally when they go out and find these doves lying dead.,

There is a sort of moral obligation to our people and our children which I think should be given an equal consideration with the financial gain which some people seem to get from it.

It has been pointed out that hunters spend a great deal of money. I would like to say, also, that other people who go out of doors, mainly as tourists or as nature-lovers, also spend money in the communities that they visit. California claims that one of its biggest industries is its tourist industry. I feel that the majority of tourists who come into our state, who spend money, are not hunters. I feel that the fact that we are preserving our wildlife in California



is an incentive, is a tourist attraction, and I feel that California should be proud of being a leader in conserving its natural resources. That is one of California's biggest assets. Its wild flowers and its wildlife are something that, in some cases, are unique, that other states do not have, and I feel that California should consider this seriously, both as a moral and a financial issue.

CHAIRMAN BELOTTI: Thank you very much.

JOHN T. MEYERS, PINES TO PALMS WILDLIFE COMMITTEE OF CALIFORNIA

Our group would like to go on record as abolishing the dove as a game bird.

Nowhere in the testimony we have heard this morning has the dove been proven a harmful thing to man's economy. The dove has a perfect, God-given right to live, and when he interferes with the human economy, then it should be controlled.

We speak of the number of doves that propagate and that there is an inexhaustible supply of them. Let me ask you one question: what happened to the passenger pigeon? There were millions upon millions of them; they would never die out. The only ones you can find now are stuffed in a museum.

You talk about conservation? You're talking about wise management, which is a very good thing, but then you're talking about wise management in an area. I think that the wildlife as a whole should be defined as such and should be controlled in their distinct areas. Those that start to interfere with man's economy should be classed as game, and should be dealt with accordingly.

We are not against hunting in any way at all, but we have never been given positive proof by the Fish and Game Department that they are ever in excess, or that they are harmful, and the fact that they don't have the necessary facts leads me to believe that our organization has made a wise move in wholeheartedly supporting the House Resolution

124 in that they will turn this into private channels and get the necessary data that we have to have to substantiate everyone's feelings- not the hunter's, but everybody's.

Talking about tax money, mine and yours, if I don't choose to hunt, that's my business. If you do, I want to see that you have something to hunt.

Manhas been the only species that has ever eliminated another one. I think it is high time we should remember the mistake we made with the passenger pigeon because it can be done. There are better guns now, and there are more hunters. If you don't regulate it, you most assuredly will lose it.

CHAIRMAN BELOTTI: Next? The gentleman right there.

DR. DAVID G. JESSOP, PRESIDENT, SAN DIEGO COUNTY WILDLIFE  
FEDERATION

We would like to go on record as opposing this bill for the following reasons:

We feel that, as a conservation club, we are the first to be interested in the quantity and regulation of a species, citing the example of the passenger pigeon, in those days when there was no club like ours to look after these birds, to set seasons, to spend money, to eradicate disease and to keep a watchful eye on the birds.

In answer to a question by Mr. Thomas a while ago, in San Diego County we do not always agree wholeheartedly with the Department of Fish and Game, but make our own recommendations simply because we know here what our situation is. We size it up and we make recommendations to them, such as that which was followed last year in the case of the doe shoot.

As you all know, it was recommended by the biologists that an open season be made, and we limited it to a 500 lottery type deal as an experiment. We do not always go along with the recommendation when



we don't feel it applies to San Diego County.

As to the point about the amount of meat on a dove, I would like to point out that there are many forms of recreation that you can't eat at all, like the golf ball and the bowling score, and so forth, and yet, if you can get recreation without depleting the numbers of doves, then the amount of meat, while it is good, is incidental to the sport.

I just want to reiterate that we in San Diego County are the first ones to take stock of our situation and would be the first to recommend such closing or restrictions as we feel are necessary.

CHAIRMAN BELOTTI: Thank you, Mr. Jessop.

WALTER B. COLLINS, IMPERIAL COUNTY FISH AND GAME CONSERVATION ASSN.

I have brought a prepared statement for you, gentlemen. If you will pass it along and bear with me I'll read it to you.

I am Walter B. Collins, President of the Imperial County Farm Bureau. I have resided 51 years in the Imperial Valley, 30 years of which I have been engaged in farming. I am representing the Imperial County Fish and Game Conservation Association, a local sportsmen's group comprising 350 active members.

I speak on behalf of an area in California in which dove shooting has been the leading sport as long as I can remember. There are more doves in the Imperial Valley than any locality in the entire state of California. Favorable habitat, nesting conditions, weather and an abundance of feed make the Valley a most productive area for these birds.

Each year, shortly after hunting season opens, the birds move out into the surrounding desert area adjacent to our farmlands and take cover in the thousands of acres of mesquite and desert vegetation that abounds there. Immediately after the hunting season, the birds return to the farming areas within the Valley, and can be seen in abundance along the highways and in the fields. We feel that with the nesting and habitat conditions that are in the Valley, together with the dove's natural ability to take care of himself, plus a well regulated bag limit annually, that it would be literally impossible to eliminate the species or even place its numbers in jeopardy.

Depredation to agricultural crops has long been one of our problems of primary concern. In the case of waterfowl, we have had to wage a constant battle with migratory birds that feed on our crops during their stay in Imperial Valley. We firmly believe that a well regulated normal harvest of birds, whether they be ducks, geese, doves or any other game bird, should be taken to keep a proper balance. Due to the doves' affinity to our Valley and their ability to propagate

in great numbers annually, it is not unreasonable to consider the fact that unless a reasonable harvest of these birds is taken each year, they would soon become a pest and would have to be exterminated. For your information, we have already had reports from growers who are desirous of information as to how to keep doves away from newly planted fields. These growers reported that large numbers of doves were actually picking up seed from newly planted lettuce and grain fields.

There is, we feel, a great deal of benefit derived from dove hunting in our area other than those of a monetary value. For many years the youth of our community have been introduced to and educated in all the proper functions of good conduct and good sportsmanship that can only be derived in the great outdoors. An abundance of birds, doves in particular, has made this possible. If we felt that the dove population in our area was in jeopardy and that the numbers of birds were becoming extinct, we would surely be the first ones to ask that immediate steps be taken to alleviate the situation. However, under the existing circumstances, we do not feel that dove shooting should be discontinued. We urgently request that your Committee concur with us and vote to continue this great sport.

Respectfully submitted.

MR. THOMAS: Do I understand the doves are causing damage to farmers?

MR. COLLINS: That's correct. I believe this is probably the first time it has been noted that doves have been taking lettuce seed out of our fields.

MR. THOMAS: It's the first time I ever heard of that.

MR. COLLINS: We'd be happy to have you come down and talk to us, firsthand.

CHAIRMAN BELOTTI: Thank you very much. Now, is Mr. Elser in the room? I'd like to recognize you because you are a member of the Commission and from San Diego.

WILLIAM P. ELSER, MEMBER, FISH AND GAME COMMISSION

I was primarily interested in hearing the pro and con on this subject. My observations this year, in southern California, through the Imperial Valley and into the northern part of Mexico, are that there has been a greater abundance of doves this year than there was last year. This observation comes from contacting various farmers in the Imperial Valley, going through the Valley, and going through San



Diego County.

Now, as you know -- as has been said -- the dove is the No. 1 game bird in the State of California. I can assure you that when the season opens, they don't stay around very long. You have heard people say that they have made a tour and haven't seen very many, and if you go in the back country today you won't see very many, but if you drop down into Mexico and go down in a little way you'll run into them because they're down there by the thousands.

Studies by the Department and by the federal government set these regulations, and we work within the regulations, as you know. Our season this year was the same as last year--30 days--and we could have taken as great as 45 days. So there is no feeling on our part that there is any chance of hurting the dove population, and, of course, we are interested in seeing this wonderful sport continued.

CHAIRMAN BELOTTI: Thank you, Mr. Elser. Now, Dr. Weber, the Chair recognizes you for rebuttal.

DR. WEBER: Mr. Chairman, members of the committee: at the last meeting in Sacramento I pointed out that, when we were children, we had an arithmetical entity known as the "lowest common denominator", and frankly, as an American citizen, I am ashamed that intelligent and trained people should set our standards by--with all due respect--our neighbor, Mexico, by what they think is right.

I have a letter from Senator Henry Saltiel from Montana where there was an attempt made this past year to open the dove season. Senator Saltiel wrote me and said that the reason that the attempt was made there was because of the thousands that were slaughtered to the south and, therefore, the sportsmen there felt that they were not getting a fair dig at the game source. But the people of Montana did not want it, and the Farm Bureau in Montana, with a few more interested citizens, stopped it flat and produced a protection law. There had not

been a law before, but now they have one.

In Wyoming, which Mr. Glading cites here as shooting doves last year, Otis J. Murphy of the Izaak Walton League produced a bill in the state of Wyoming.

In Nebraska, the Farm Committee which corresponds with the Fish and Game Committee here, was approached to open the season. They voted it down by 5 to 2 because the people liked the closed season.

Now, please don't let us set our standards in protection of wild-life by other countries. I agree with Mr. Smelser that this is a thing that can be approached politically and solved, but we must not lower our standards to correspond with those of Mexico. And Montana would not lower her standards just because the sportsmen wanted that. What do the people want here? That is important.

I have cards here, voting cards on which organizations and people have voted all over the state, and I find, generally, that thirty times as many people want protection as are satisfied with what goes on now.

These were not "pressure" cards. They could answer them or they could throw them in the wastebasket. The first place we inquired was Colusa County. We sent 80 fact sheets (such as you have with the question cards) to Williams, California, and asked the recipient either to answer it yes or no or do whatever he wanted to with it. In response we received 23 replies from Williams, California. That is 30 per cent, and I challenge any of you to send out any kind of a questionnaire card to be answered and get a 30 per cent response, if you don't have a give-away with it. It indicates great public interest in this matter.

We also did this in other locations throughout the state.

Mr. Frew, do you know what you would find if you walked along one of your rural routes and inquired of your rural route boxholders as to how many would be for protection and how many against it? It



would be 17 to 1 in favor of it.

In El Cajon, Mr. Schrade, do you know what you would find? You would find ten times as many people interested in dove protection as are satisfied with what goes on now -- your constituents.

Do you know what you would find, Mr. Erwin? Eight times as many.

And yet you men hesitate here to put across something which the people want.

Now, I don't know what else we could bring up here. All this talk about depredations is absolute dribble. I have hundreds of cards here on which everybody answered that question. The question was, "Do doves damage crops?" The only ones who answered "yes" were the people who shoot doves. It is a very interesting and, I think, an odd coincidence. All the crops that have been given by people who claimed depredations are listed on there, and everyone says "no," usually with emphasis.

MR. THOMAS: From all your experience, do you think more work has to be done on the dove investigation?

DR. WEBER: Mr. Thomas, I am convinced that there has been plenty of work done on the important features of the mourning dove. One of the most important, of course, concerns the nesting habits, and apparently the Fish and Game Department is pretty well satisfied with that.

However, don't forget this -- we primarily claim that this is an unwise use of a resource. By that I mean that it is comparable, you might say, to someone's suggesting that we cut down citrus trees because they can be burned for firewood, which is true. You can make money out of it, but you don't do it.

The mourning dove -- in spite of everything you gentlemen say -- in the opinion of qualified scientists, has economic value. I don't care what anyone says to the contrary.

You mentioned the population of doves, and their reproductive

capacity. Mr. Glading -- with all due respect to his intention here -- rehashed what Mr. McGregor had in "Outdoor California", and there are many misstatements in it. For example, he mentioned the reproductive capacity and he said that they found that the mortality rate of the young was high. All right. He said that the largest dove study done in connection with nesting was by McClure in Iowa. He found that each dove nest usually ended up having 1.85 eggs in it. They started five nests each year, but only completed 2-1/2; 2-1/2 times 1.85 equals 4.7 -- that is the number of doves one pair of doves produces on the average.

Now, if the mortality of the young is high, where do we get off? We have doves because Montana protects them, and the states up north protect them. And we have pools of doves, such as Mr. Erwin here says they have in Los Angeles; if we didn't have those areas we would have none, I can assure you.

I would say that 98 per cent of the cards I have here answered "no" to the question, "Are doves as plentiful as ever?" Those are people who are on the job, walking over the same terrain every day or riding over it, and they know. They are farmers and ranchers.

MR. THOMAS: Would you say we should cut down the season 50 per cent? Would that help?

DR. WEBER: No, it would not, Mr. Thomas. It is just as unwise, in a conservation matter, to shoot a dove in November as it is to shoot them in September. You still lose a valuable resource and you are treating it unwisely, there is no doubt about it.

MR. ERWIN: The group that you represent and people who are interested in the protection of doves -- have they ever thought of the idea of approaching it, county by county, and working that way? Don't you think that the birds migrate from the north?

We have had testimony here that immediately when they begin



shooting, the birds move out. They say that if they have an early storm in the north the birds are gone before the first of September. That's what a lot of them have told me. I know some of the sportsmen have told me that they had a great many doves before September but an early storm came in and they migrated and were gone.

DR. WEBER: May I interrupt? That is exactly why, Mr. Erwin, it is almost impossible to make a very accurate census of this bird. They are volatile, with migratory habits. It would take thousands and thousands of counts. That is why we believe that the people who live in the country and see them should know.

CHAIRMAN BELOTTI: Thank you.

The following information on dove protection was submitted by Mrs. Marguerite A. Smelser, 1212 Scenic Drive, San Bernardino, California following the committee meeting:

"Because I was not given the opportunity to express certain facts I have regarding dove protection at your Interim Committee's San Diego hearing yesterday, I request that this letter be added to the record.

"1. SENATE INTERIM COMMITTEE REPORT, 1957:

"For the information of the hunters present who expressed themselves as faithful followers of whatever might be the recommendations of the California Department of Fish and Game, I very much want it made a matter of record that we are aware that the Senate Interim Committee on Fish and Game (report released in August 1957) blasted that Department for, among other things, 'woeful lack of planning,' 'distortion of facts,' and for the people's loss of trust and confidence in the Department.

"The Department of Fish and Game has NEVER represented the 95% of California's population that does NOT hunt. Proof of the 95% figure: California's population in July 1956 was 13,433,000. The Fish and Game Department's own claim regarding hunting licenses for all of 1956 was 650,000 (Outdoor California -- the Department's official publication -- for June 1957, page 6). In view of the increase in population during the last half of 1956, the percentage of hunters would be actually considerably less than 5%. And because even of this small percentage, only a part are dove hunters, it is evident that the overwhelming majority in this state will have no part of dove hunting. My work brings me in contact with many people who are among this majority.

"2. DOVE POPULATION. A great many words and conflicting opinions were spoken as to whether doves are increasing or decreasing in numbers in California. From my own personal observations and inquiries, I

believe they are decreasing. I am a native Californian. BUT DECREASING OR INCREASING -- THIS IS BESIDE THE POINT. They are a harmless, even beneficial bird. We are convinced the great majority want them protected against hunters. As long as there are seeds of weeds there cannot be too many doves.

"3. MR. GLADING'S REPORT (at your San Diego meeting) concerning doves was full of misrepresentations, but you gave no one except Dr. Weber an opportunity for rebuttal. Therefore, we request that the record be held open until we can write a refutation of this Fish and Game Department official's claims, point by point. This refutation will be mailed to you shortly."

(signed) Marguerite A. Smelser  
(typed) Mrs. Marguerite A. Smelser

CHAIRMAN BELOTTI: I would like to mention here that when I came in this morning I was handed this stack of communications addressed here to San Diego, and I want to assure those who have written them that we will give them every consideration that is due them, and we will certainly read them and then save them for the record.

DR. WEBER: I might add one more word, Mr. Chairman. These cards represent organizations and we figure that, as a grand total -- as a conservative estimate -- more than 120,000 members of organizations have voted in favor of this resolution. Thank you.

CHAIRMAN BELOTTI: Thank you. If something doesn't happen, I will say this, Dr. Weber -- it isn't because those you represent or you, yourself, haven't done a marvelous job in presenting your side.

We want to recess until two o'clock, at which time we will take up the subject of kelp cutting and the privilege tax.

WEDNESDAY AFTERNOON SESSION  
October 2, 1957

The meeting reconvened at two-twenty o'clock, Chairman Belotti presiding.

CHAIRMAN BELOTTI: The meeting will come to order, please. I am going to turn this portion over now to Mr. Don Allen for the subject of "Kelp Cutting and Privilege Tax," because he has already done



considerable work and research on it.

(Mr. Allen assumed the chair.)

CHAIRMAN ALLEN: I wonder if we can come to order so we can all understand the rules?

Mr. Chairman, members of this committee, the committee members all know too well that we are a fact-finding committee, and not a fault-finding committee, and we are not conducting a spit-and-argue or debating society here this afternoon. Anything that we may take into consideration here today cannot be transformed into law until the next general session in 1959. This is the preliminary hearing on a progress report on matters which have been assigned to this committee by the various members of the Legislature, and the Rules Committee.

I am going to ask the members of the committee to write down any questions that they wish to ask of these witnesses who will now testify before the committee. Please do not interrupt at any time until they can conclude their statements.

I feel that according to the way that Dr. ZoBell has his people set up, the next speaker may answer your specific questions.

I know we're cramped for time, but I just want to take the time to say this: I have been around in public life a long time now, some 22 years, both in the State Legislature and then in the City Council of Los Angeles, and back in the Legislature again, and I have worked with an awful lot of departments, but I want to tell this committee that when the committee chairman assigned me to pull this hearing together, the courteous treatment and the cooperation that was given to me down at the Institute of Marine Resources by Dr. ZoBell and all of his associates was the finest I have ever received in all of those years. There is one department that I can walk away from and say, "Let 'em go; they're doing the right thing."

Dr. Claude ZoBell, will you please lead off and introduce your

subject?

DR. CLAUDE ZOBELL, INSTITUTE OF MARINE RESOURCES

Thank you, Mr. Allen. Honorable members of the committee, ladies and gentlemen, my name is Claude ZoBell. For the past quarter of a century or more, my place of business has been at LaJolla where I have been engaged at the University of California almost exclusively in obtaining information about the sea, and disseminating this information to interested individuals.

One of our problems -- both at the Scripps Institution of Oceanography and the sister organization, the Institute of Marine Resources -- has been concerned with the study of kelp, its harvesting and how it affects man and conditions in the sea in many ways. There are some of my colleagues who are here today who are prepared to give brief testimony regarding some of their observations, and the facts that they have obtained throughout the years.

Before presenting my own testimony on my own special aspect of this subject, I should like to introduce, first, Admiral Charles D. Wheelock, who is Professor and Director of the Institute of Marine Resources, who will speak to you briefly on marine research at LaJolla.

ADMIRAL CHARLES D. WHEELOCK, DIRECTOR, INSTITUTE OF MARINE RESOURCES, LAJOLLA

Thank you very much. Mr. Chairman, members of the committee, ladies and gentlemen, it seems to me worth while to introduce the speakers in a little different way than Dr. ZoBell has because, coming to the Institution as I have from many years in the Navy, I get just a little bit of a different slant on the way things are done, and perhaps an appreciation that is more like the one that you would have.

The work on research in kelp, as Dr. ZoBell has stated, has been going on for a long time. It received a tremendous impulse last year when the University entered into a standard agreement with the Depart-



ment of Fish and Game for a more extensive study. This was preceded by all the formalities that go with such a thing -- committees and meetings and what not. But I did want to point out to you that a standard agreement between agencies of the State of California is quite different from a contract. We don't feel that the State department and the Regents are in a contractual relationship in this case. They are in a mutually satisfactory agreement status. The responsibilities of the University are for instruction and research, doing some fact-finding for the State and the people. The interests of the State Fish and Game Commission, and the University, overlap in this matter of kelp because we can do good work for our students and our investigators, and the result of that work is the sort of thing that the state needs in determining policies and taking action such as you are leading up to today.

This is important to me because it means that the University is entirely free, the investigators are entirely free; there is no target other than a general one which covers the problems in the use of kelp. It has been a wonderful thing for the people engaged in the study. We have the state to thank for this and we are most appreciative.

The things that the investigators -- about eight of them -- will report to you in short order are facts which we hope you can use. I would like to make this point clear -- this is planned as a five-year investigation. We have completed about one year of it; it was started just a year ago this month. We hope that by next year -- and before you have to present any considerations or studies to the Legislature -- you will find an opportunity to let these people present their additional year's accumulation of facts to you, because I am sure that this will be important in any decisions that you reach. Thank you.

DR. ZoBELL: Next I should like to present Dr. Carl L. Hubbs, Professor of Fish Biology, who will testify regarding his observations on kelp harvesting.

DR. CARL L. HUBBS, PROFESSOR OF FISH BIOLOGY, INSTITUTE OF  
MARINE RESOURCES

Mr. Chairman and members of the committee, I do not want to infringe upon the time of the boys who will follow -- the actual team of investigators.

As I have just been introduced, I am interested in the fish life. This, of course, is involved in the problem in a prominent way. I was concerned in the supervision of one investigation of the relationship between kelp and the fish life between kelp harvesting and the fish life with the work done under Mr. Limbaugh, who is present. I was also instrumental in a way -- with others, perhaps -- in promoting this investigation, which I think is fundamental to a solution of such problems as you have before you in these two bills.

The question is whether harvesting of the kelp is a wise thing in the general public interest.

I was fortunate in being a member of the kelp study committee advising the state, the committee which promoted this investigation, with Parke Young, which was a subcommittee that actually drew up the proposals for the nature of the investigation. I am very proud of the start that has been made. It is just a start. We have had difficulty in recruiting men of the finest caliber for this work. For the man who was to investigate the relationship between the kelp and the fish life which is central to one of the problems you have here, we sort of hit the bottom of the bucket in this country, and couldn't find a man until we finally brought one up from the Southern Hemisphere, Dr. Davis, from South Africa, who has been getting into this investigation with this team in a big way.

We have a number of other investigators. Dr. Sargent, who is now with the Office of Naval Research Scientific Liaison, is with us. He has done an important work with the kelp. He is doing some of it, along



with a corps of young men we have gotten together on this kelp study.

Dr. ZoBell said I would present a few observations of my own on kelp harvesting. I have watched this, of course. I have watched some of it for a great many years. I came to San Diego in the year of Our Lord, 1896, and as a boy, playing on the beach, I know that there was more kelp on the beach then than there is now. That affects this problem of the kelp on the beach -- whether the kelp harvest is responsible.

I have been conducting a survey of the temperature and ocean life along the coast of Baja California, Mexico, for a good many years, before there was any kelp harvesting, and I know that there is much more kelp on the beach.

I have been out with the kelp harvesters and seen them operate. I know what sort of fish they destroy, and that is quite inconsequential, I can assure you. However, my own observations have been relatively slight compared with the detailed scientific investigations of the group investigators we have, and I'd rather have them give you the results of their work.

DR. ZoBELL: Thank you. I would like to give you some observations of my own on kelp harvesting and beach conditions. You will pardon me, please, if I read a few short paragraphs because I find it is rather difficult to summarize, in four or five minutes, results which are spread on hundreds of pages of data sheets and which embrace thousands of pictures.

"Continuously, from March, 1945, to December, 1957, biweekly observations were made on beach conditions at 29 stations between Ocean Beach and LaJolla. From June, 1954, through December, 1957, similar observations were made on the amounts and kinds of seaweeds and the changing level or elevation of sand on 12 beach stations, from Del Mar north to Laguna Beach.

"Many other beaches along the coasts of California and in other

parts of the world have also been studied. Although it often predominates in abundance or bulk on beaches or in the surf, a commercial kelp, the so-called macrocystis, is only one of many seaweeds that are washed ashore.

"At many of the beach stations regularly observed or visited in response to complaints, seaweeds other than macrocystis predominated on the beach, or in the surf. Commonly present along the southern California coasts are surf grass, eel grass, feather kelp, elk kelp and many other marine plants and so-called seaweeds.

"This point is emphasized because many people refer to all kinds of seaweeds and marine plants that occur on the beach as kelp, and often blame all kinds of seaweeds and marine plants upon the activities of the kelp harvester, although the kelp harvester may have had nothing to do with the appearance of eel grass, surf grass and some of the others that may constitute as much as from 50 to 60 per cent of the seaweeds that litter our beach at times.

"Many factors affect the natural occurrence of kelp, its injury, and its fate in the sea. This makes it difficult to get conclusive evidence on how it is affected by the activities of man, such as harvesting, moving boat propellers, pollution, and other activities. In general, though, it seems that man plays a rather minor role as compared with the forces of Nature. Nature's forces include storms, extreme water temperatures, lack of plant nutrients, predators, and diseases."

A little kelp, particularly in the form of fragments, may come ashore as a result of boats moving through kelp beds. Our observations, though, indicate that less than 1 per cent of the kelp on the beaches can be attributed to this cause.

Never have I noted a case of beach littering that could be traced primarily to the activities of kelp harvesters. Occasionally, small



amounts of kelp cut by harvesters escape to be washed ashore, but the total is negligibly small as compared to the bulk of other kinds of seaweed or kelp on beaches due to other causes.

Most of the kelp seems to come ashore as a result of heavy seas, in the wake of storms, and sloughing during periods of abnormally high water temperatures. Damage to the gas-filled float bladders, believed to be caused by microbial infections, may cause the kelp, in extensive beds, to sink to the sea floor where it dies. Boring, chewing and other parasitic animals, as well as microbial infections, are believed to damage kelp, particularly old kelp in unharvested beds, causing part or all of the plant to break loose, but the part played by such organisms is yet to be established.

My biweekly records, kept for 12 years, show that the only correlation between the operation of kelp harvesters and the amount of kelp on beaches is a negative one.

In general, much more kelp comes ashore in the proximity of beds that have not been harvested than back of beds that are harvested periodically. The occurrence of kelp on the beaches is more frequent and greater in amount in the vicinity of beds that are not harvested. This is true, not only along the California coast but elsewhere in the world. Certain beach communities in the British Isles have considered subsidizing the harvesting of seaweeds as a means of minimizing the seaweeds being torn loose by storms and washed ashore to litter beaches.

I have personally observed and talked to naturalists about conditions along the east coast of New Zealand and Tasmania, where kelp occurs in large quantities but is not harvested commercially, except in limited quantities for soil conditioner when it washes ashore. Part of the seaweed set free is washed ashore in huge piles, some of which remain there for months. Harvesting the beds regularly would probably keep the beds in good condition and substantially reduce the

amount of kelp that would then be washed ashore.

At our beach stations in San Diego County there is considerable movement of sand, as manifested by changes in the elevation of sand from as much as 8 to 10 feet from season to season. It is not known whether kelp beds in the area affect ocean currents or the shifting of sand, but our observations during the 12-year period show no relationships whatever between kelp harvesting and beach erosion.

From the viewpoint of minimizing beach littering, as well as keeping kelp beds and associated animal life in good condition, I am aware of no scientific facts which seem to warrant legislation to curtail kelp harvesting. Whether there are ways of improving these conditions can be determined only by gaining more information on this complex problem, and I am functioning as a member of a team of several who are engaged in trying to get more information about these very factors.

And now I would like to present two men who are concerned with fish life in kelp beds. First is Dr. David Davies, who will be followed by Mr. Conrad Limbaugh.

DR. DAVID DAVIES, INSTITUTE OF MARINE RESOURCES

Mr. Chairman, ladies and gentlemen, having arrived from South Africa less than two months ago, I am not in a position to make any sort of a contribution toward what is being said by the remainder of the team, but I would like to say this, that during my 11 years of work on fisheries' problems in South Africa, I have become familiar with problems of the sort involved in the kelp harvesting and sport fishing interests, and have done biological research work in relation to fisheries during all that time.

I have occupied the period of my stay at the Institute of Marine Resources -- up to date -- by thoroughly familiarizing myself with all the work that has been done by the people who have worked on various aspects of the kelp project for the last five or six years, and I hope



to be able to take my place in the team and follow on with the work and the very excellent foundations laid by Mr. Conrad Limbaugh, who has done all the work, or most of the work, on fishes up to date. Thank you.

MR. CONRAD LIMBAUGH, INSTITUTE OF MARINE RESOURCES

You have a copy there of the final report that I made when I finished.

I am going to be very, very brief here. Kelp beds are important to fishes and thought should be given to preserving and increasing our present kelp bed areas. No evidence uncovered during intensive investigation of the kelp beds suggests that kelp harvesting hurts fishing. The harvested portion of the kelp beds is not a nursery or spawning ground for commercial or game fishes. Sufficient forage for fishes in the kelp beds is always available after harvesting.

Kelp beds are not destroyed by kelp harvesting. Destruction of kelp beds in some cases, however, is related to pollution. Kelp beds near three major southern California outflows -- San Diego, White Point and Hyperion -- have disappeared. These are the Tiajuana, White Point and Santa Monica beds.

DR. ZOBELL: Mr. Limbaugh, whom you have just heard, is the senior diving officer at the Scripps Institute and most, if not all, of his observations have been made under water using this technique.

Next I should like to present, for his testimony, Dr. Kenneth Clendenning, who will speak briefly on the productivity and growth of kelp.

DR. KENNETH CLENNENING, INSTITUTE OF MARINE RESOURCES

Mr. Chairman, ladies and gentlemen, the work which Dr. Sargent and I are doing is concerned with the primary process of photosynthesis, which is the source of the organic matter. Since March we have studied photosynthesis in the field, from the bottom of the kelp beds to the

surface. We have been following seasonal changes in photosynthetic activity and I can give you a fair estimate of what the production potential is of the average kelp bed. I thought it would be of interest to compare that with the organic productivity of the open ocean.

You may not all realize that there is a tremendous amount of food being produced in the open sea as well as in the kelp beds, and in studies that have covered all the way from California to New Zealand, the line transects right across the Pacific Ocean. The average productivity of that open sea was from 2 to 4 dry tons of organic matter per acre per year, and my estimate of the kelp bed productivity would be around 10 dry tons of organic matter per year. That is assuming 50 per cent cover, with an average of one blade thickness.

I would like to refer to the present condition of the summer canopy in the LaJolla kelp bed. Although the canopy has not been removed as in some of the other beds because of the damage of high temperature, it is no longer photosynthetically active. Representative samples of that material show practically no production of new organic matter. The canopy is still there, but it isn't really doing anything and it is shading the young growth in deeper water. Thank you.

DR. ZOBELL: Thank you, Dr. Clendenning.

Dr. Marston C. Sargent, plant physiologist at the Institute, and currently liaison officer with the Office of Naval Research, is concerned with some of these problems, and I'd like to ask him to make a statement, please.

DR. MARSTON C. SARGENT, PLANT PHYSIOLOGIST, INSTITUTE OF  
MARINE RESOURCES

Thank you, Dr. ZoBell.

Of course, I want to make it clear that I'm speaking as a private investigator and not as a representative of the Office of Naval Research. I have little to add to what Dr. Clendenning -- with whom I am working



in close association -- has to say. I want to point out that at Scripps people have been interested in kelp for a great many years, mostly from a practical point of view, as to what can be done with it, what effect it has on the beaches. That has been reviewed for you already by Dr. ZoBell.

At the same time, people have been working on kelp at Scripps because they are just interested in the kelp itself as a kind of plant material worth knowing about, to throw light on the general science of its possible ultimate use. This kind of work goes back as far as 1911 at Scripps when Dr. Ellis Michael, Professor of Botany, also worked on the growth and photosynthesis of kelp plants, as we are still doing 46 years later.

At the same time, as I'm sure most of you know, Scripps provided the personnel who first mapped the kelp beds of southern California. Captain Crandall and his associates of the Marine Biological Association of San Diego were the people who did it.

So both of these types of investigations of kelp are continuing today, and I think the people speaking to you this afternoon fairly represent both branches of investigation. Thank you.

DR. ZOBELL: Michael Neushul, on our research team, is concerned with the growth rates of kelp and the effects of harvesting. Mike, please, would you present your testimony?

MICHAEL NEUSHUL, INSTITUTE OF MARINE RESOURCES

Members of the committee, ladies and gentlemen, for about three years now I have been working on kelp. I became interested in it while a student at U.C.L.A. Coming to Scripps, I became quite involved in the botanical aspects of the problem, mainly those concerning growth and reproduction. I have had some success in the past year in completing the life cycle of the organism, kelp, in the laboratory, raising young plants under laboratory-controlled conditions to approximately a foot

in length. I have also had a small amount of success in planting young plants in the ocean.

I mainly have data here on the growth rates of the young plants, both in an experimental condition and in a natural state.

Early in the investigation we found that it was not very profitable to measure the growth of young plants underneath the kelp canopy because of the complexities introduced by the environmental conditions which were present there, so it was decided that an experimental setup should be made where these complexities would be eliminated. Thus, we produced a system whereby we planted young kelp plants in the ocean at depths ranging from 75 feet to 25 feet below the surface, on floating rafts which were anchored very close to the Scripps pier.

The results of these experiments were quite startling to most of us who were familiar with the ordinary rates of plant growth. By raising these rafts at regular intervals to the surface, taking plants off and photographing them against an accurately ruled grid, we were able to accumulate a large number of photographs of young plants as they grew and developed.

By planometric methods we were able to ascertain the area, the stem length, and the over-all morphological features of these young plants as they developed. We found that in the wintertime, the young plants increased at a rate of approximately one doubling every two to three weeks.

Now, when you are thinking about the growth of the kelp plant or any other plant, you have to consider the investment and the return on the investment. In other words, the larger the plant, the larger the machinery is to produce new tissue. So when you think of growth in terms of kelp, you should think of the amount of time it takes to double the original size. I have a few graphs here that I hope you will be able to see. These show the growth rate of young kelp plants.



(Graph) This is "days" on this axis, and this is "area in centimeters" on this axis. Now, it was found that kelp plants which were grown the fastest (the orange line here is the 50-foot depth, the green line is the 25-foot depth, and the blue line is the 75-foot depth) as you can see from this graph, were the plants which were at the 50-foot depth. The plants which grew the least were those at the 75-foot depth.

During the process of the investigation, light measurements were made, and temperature records were kept, so we have the light and temperature records for this station and can correlate the light and temperature with the growth of the young plants.

Now, considering the growth of the young plants in terms of stipe elongation, or the length of the branches, we find here that the plants which grew at 50 feet showed a greater rate of stipe increase than shown by the plants which grew at 25 feet and at 75 feet. Thus, in considering these two graphs, you can see that the area of measurements will give you a very accurate assay of the growth rate of the plants, much more so than the stipe measurements.

On the basis of this experiment we developed a hypothesis which generally is that the plants double in size every two or three weeks in the wintertime.

Recently a sand shift occurred in the submarine canyon in the LaJolla area, and a population of young kelp plants established itself. This was a pure population of young kelp plants. They started off at approximately 180 square centimeters in size. It was a good stroke of luck that we happened to find this group of young plants. That was approximately three months ago that these plants were found.

We have taken two samples so far. The preliminary working up of these two samples shows that during the period between the two samples, of 30 days, the plants increased from an average of 180 square centimeters

to over 4,500 square centimeters.

Measuring 4500 square centimeters on a kelp plant is quite a feat, so that the sample which we took in the last case was not quite as large as the primary sample, which involved several hundred plants. This should give you some idea of the great rate of increase in kelp plants under measured and actual conditions which exist in the sea. Thank you very much.

DR. ZOBELL: Thank you, Mike.

A member of the committee has asked me to comment briefly upon what is the critical temperature for the growth of kelp. It would take a very long while to go into all of the angles of this subject, to indicate to you how definitely we don't know, but, in general, about 70 degrees Fahrenheit is near the critical. However, you should not take this as being the absolute critical temperature because this will be influenced by the concentration of nutrients, oxygen tension, the circulation of water, and perhaps several other factors, but, in general, we find that in the summer months when the water temperatures get much above 68 or 70 degrees, we can start to expect black draught, this disease of the float bladders that I mentioned, and other ailments of kelp in unharvested beds.

There may be other questions later, but our formal testimony will be concluded by the presentation of Dr. Wheeler J. North, who is acting project manager and Ecologist at the Scripps Institution. He will tell us something about the losses due to cutting and losses from natural causes. Dr. North.

DR. WHEELER J. NORTH, ACTING PROJECT MANAGER AND ECOLOGIST,  
SCRIPPS INSTITUTION OF OCEANOGRAPHY

I have here the piece de resistance, our annual report, which is just hot off the press. There is some tabular material in there that might be of interest.



During the past year it has been one of our aims in the kelp investigations program, in some way to assess permanent damage if any exists, caused to kelp by the activities of man and to try to compare this with destruction of kelp in the sea by the forces of Nature. If one should turn out to exceed the other considerably, we would then have at hand a more practical approach to the whole problem, enabling us to concentrate research where it will do the most good.

The two chief activities of man which appear to cause the removal of kelp are pollution and cutting. We have not yet had time to investigate extensively the pollution question, but we expect to start a major study of this aspect this fall with support from the State Water Pollution Control Board. Hence, it is intended to limit today's discussion primarily to cutting.

Cutting is done intentionally by kelp harvesting companies in the United States and in Mexico by abalone divers who clear away a portion of the sea floor. They do this in order that their hoses may not become entangled in the kelp plants. Inadvertent cutting is performed by boat propellers as craft pass through kelp beds. In general, the least effect probably results from cutting by propellers and the most severe is that by abalone divers, which usually kills the plant outright.

However, when boat traffic is concentrated into a lane or channel -- typical examples often being found when boat-launching piers are located in the lee of a large bed -- in such cases damage to the surface portions of kelp plants can be quite severe and the process usually goes on continuously throughout the year.

The methods we have used to study the effects of cutting have depended largely upon quantitative and qualitative surveys of delineated areas of the ocean bottom, in kelp beds, using diving techniques. We determine the concentration of plants in the sample area, we determine the ratio of adults to juvenile, we list the more important animal and

plant forms found, and, in addition, we obtain a measure of the thickness or density of the kelp forest by calculating a statistic which we call the "stipe index," which is the average number of kelp stipes per square meter in the area.

It is really rather difficult to try to find something that you can determine which will tell you this kelp bed is thicker than that kelp bed, and it is my feeling at present that this stipe index does that more satisfactorily than any other quantity we could measure.

Our group has thus surveyed approximately 80,000 square feet in 15 different kelp beds, both harvested and unharvested, from Punta Ascension in Lower California to Paradise Cove in the United States, a distance along the coast of over 500 miles. The range of variation in the populations and in the statistics is quite large, but no evidence has appeared which indicates that any fundamental difference exists in the amount of kelp found in harvested and unharvested beds.

Table 1 presents some of the data. Table 1 is in the testimony which I have given the committee.

We have compared an area at Paradise Cove -- continuously cut by both propellers and possibly influenced by a pier -- with an immediately adjacent harvested area. The subsurface density of kelp in the cut area (as measured by the stipe index) was  $1/2$  to  $1/3$  the density in the unharvested area.

We have also compared a section of a bed at Punta Eugenia, Mexico, where, some months previously, an abalone diver had cut a wide swath with the immediately adjacent normal area of the same bed. Forty large plants had been chopped away in the denuded area, but young plants were springing up everywhere in this area, encouraged by the greatly increased light intensity, presumably, which now existed in this region. The result was that the density of stipes had only been decreased to about two-thirds the normal value by the drastic cutting action. The



total number of plants in the cut section was 160, nearly four times the 44 plants found growing in the adjacent uncut region. Both locations contained approximately the same area, about 2,000 square feet.

We have concluded from these studies that the activities of man, even when most severe, are able to decrease the density of kelp beds by a factor of the order of one-half, and even this decrease is probably temporary and lasts only as long as the destructive activity. Proper harvesting methods are designed to cause as little permanent damage to the plant as possible, and there is as yet no evidence to indicate that any deleterious effect to the kelp is being produced by this activity.

Your group has been studying another situation near Punta Calaveras in California. Punta Calaveras is about 150 miles south of here. These studies have been instructive in indicating the magnitude of natural forces which destroy kelp plants in the ocean.

On March 29th of this year a tanker, the Tampico, ran aground on a rocky point near Punta Calaveras and came to rest across the entrance to a cove in which some kelp was growing. Much of the cargo of refined oil was liberated in the accident and the sudden, heavy, localized concentration apparently killed large numbers of marine animals in the vicinity. Many of these animals are known or suspected of being kelp enemies.

This area has since experienced an intense bloom of young kelp plants in the immediate vicinity of the wreck. Presumably, the disappearance of the animals noted above has sharply reduced the mortality rate on kelp in this area. It is possible to rule out other explanations for the bloom since no other areas immediately along the coast revealed comparable increases.

Shortly after the wreck it was observed that there were four large adult kelp plants in the cove behind the Tampico and presumably, these four plants constituted the existing adult crop before the shipwreck.

I should mention that the oil did not appear to harm the kelp. Quantitative measurements have enabled us to estimate conservatively that now (or, rather, as of two weeks ago) there are more than 40,000 kelp plants in this cove, an increase of about 10,000 times the previous population. Recent observations indicate that these young plants are all growing well and rapidly, and should reach maturity in two or three months.

From what has been said it can be readily seen that the mortality rate on growing kelp in normal areas must be very high. The activities of marine animals feeding on young plants and spores are apparently so intense that less than one kelp organism in ten thousand survives to become a mature plant.

In conclusion, if it is desirable to maintain or increase the extent of the kelp beds along our coast -- and I feel that this is a very worthwhile goal for our program -- it would seem illogical at the present time to concentrate much further investigation efforts on the effects of cutting by man. Rather, it appears that much more can be achieved by promoting research on basic biological processes existing in the ocean which our studies indicate are overwhelmingly important in controlling the sizes of populations. Speaking strictly of kelp, we can receive encouragement from the concrete, spectacular example at Punta Calaveras that a ten-thousandfold increase in the standing crop is possible.

CHAIRMAN ALLEN: Does that conclude your testimony, Dr. ZoBell? Is there any member of the committee who wishes to ask any member of the team some question?

MR. THOMAS: There is only one question I would like to ask, and that is pertaining to this bill here which eliminates the taking of kelp in District 19.

MR. SCHRADE: That's No. 3405.



MR. THOMAS: It says, "No kelp shall be cut or harvested in any portion of District 19 lying offshore of Los Angeles County." Now, is there anyone from the witnesses who have testified today who could give us any information that may shed some light on this thing?

We have talked about kelp in a general way, but District 19 is the only thing that this bill mentions, so I'm not interested in kelp in any other district. My question, then, is: has kelp cutting in District 19 affected any of the fish population?

CHAIRMAN ALLEN: I think Dr. North might be able to answer that as he testified to being in Paradise Cove. That is District 19, isn't it? That's the one which brought about this bill, Mr. Thomas. For your information, it was introduced by Mr. Levering after several complaints.

MR. THOMAS: Well, this report which I received from the University of California says harvesting has no detrimental effect on fish populations, but it does not specifically say anything about District 19. I'm trying to limit that question to that particular fish and game district.

DR. NORTH: I have no information on it, specifically on the fish life of District 19. I do have some information on the kelp. I have here two photographs taken by the Department of Fish and Game, one in May of 1955 and one in May of 1957. I should say that the bed on one side of the pier has been continually harvested since this time, I am told by Fish and Game, and the bed on the other side has been left unharvested for a period of about a year.

I have drawn these maps which you people may have. It is difficult to interpret the photographs because you can't lay them one on top of the other, but that shows any changes that occurred in the bed during that time and, if anything, it has increased. They are really more or less about the same.

The bill does not state any of the reasons for eliminating the

cutting. Presumably, the reason for eliminating cutting is to increase the kelp, thereby producing benefit to other things in the area. Well, if kelp is staying the same, or slowly increasing, it doesn't seem to me that there is much basis for requesting that the cutting be discontinued.

MR. THOMAS: District 19 is all south of Santa Barbara.

My second question concerns pollution which someone mentioned -- the disappearance of kelp in my particular Assembly district. Is it a proven fact that pollution has caused a disappearance of kelp in White Point?

DR. NORTH: I don't really know the answer to that question, except to say that during the period from 1945 on I have been told the kelp company that harvests in that region submits the tonnage that they harvest, and the tonnage has decreased each year, and finally -- I believe, around 1948 -- they gave up completely.

In the survey of the kelp beds on the Pacific Coast made in 1911, the Palos Verde area was recorded as having a very rich, thick kelp bed.

MR. THOMAS: Well, I'd like to ask any of the witnesses who have appeared today: have you proved that the pollution of White Point has killed the kelp? That's the only question.

DR. ZOBELL: Speaking to this point for a moment and answering your question, I do not believe that we have incontrovertible evidence that pollution has been responsible for the disappearance of beds 11, 12 and, I believe, 13 or 14, off White Point. However, there is a definite correlation between the increase of flow from the ocean outfall, the increase of the amount of sewage and pollution, and the decrease. However, other things have been taking place, too, in that same area. There are reasons for believing that pollution has contributed to the loss of these important kelp beds in that area; however, we do not have conclusive evidence. It is for this reason that research



is contemplated, to put emphasis upon the effect of pollution upon kelp, not only at Los Angeles County but along the entire coast of southern California. I would say that many of us who have been in the middle of that problem -- and I spent considerable time on it, myself -- have very strong reasons for believing that pollution is responsible, but we have not established this as a fact.

MR. THOMAS: Out of this report that took five and one-half years, and you have a contract with the Department for doing some research which cost \$30,000 -- out of all of this, you haven't been able to find out what caused the disappearance of kelp in District 19, then. You don't actually know, even though you had all of this research done.

DR. NORTH: We continue to get fundamental facts that help to complete the picture, but it may take us five more years, or even fifteen, to get all of the facts, particularly when conditions are changing due to the increase in population and the attendant changes along the seacoast.

CHAIRMAN ALLEN: Mr. Limbaugh, did you wish to answer Mr. Thomas' question?

MR. LIMBAUGH: I would like to comment on the pollution in the White Point area. I have dived there; I have looked at the bottom. I know that from past records -- and as a boy -- that there was kelp in the immediate vicinity. I know that the kelp has been disappearing to a farther and farther distance from the outfall.

I also know that on the bottom it is almost completely barren of plants of any kind, in the shallow water, and although this might lack all of the complete proofs, I still think that it is sufficient evidence that the area is being affected detrimentally by the outfall, and that the economically important organisms associated with plants are missing from that area.

MR. THOMAS: You haven't covered that point in this report, have you?

MR. LIMBAUGH: I believe I just mentioned that there was strong evidence supporting the fact that White Point outfall was influencing the kelp beds in that area. I think that is as far as I went in making a statement. However, there is a published report -- well, there are two published reports -- dealing with that area, both of which suggest very strongly that the outflows are damaging that area.

CHAIRMAN ALLEN: Does that answer your question satisfactorily, Mr. Thomas?

MR. THOMAS: It answers my question, but I can't get something specific. I can see they haven't gone that far in their research yet to finally make a definite statement that the outfall sewer is the cause of the disappearance of kelp. In other words, they admit that you don't actually know.

MR. LIMBAUGH: We have not traced the particular constituents or change of activity which would cause the kelp to disappear, but I think that there is strong enough evidence to say that the presence of the outfall in that area has caused it.

MR. THOMAS: If someone in the Department were to say the outfall of the sewer is destroying all the kelp in District 19, would you say that was a true statement?

MR. LIMBAUGH: I wouldn't say that was a true statement because there are other things that kill kelp, too.

MR. BELOTTI: Mr. Chairman, I'd like to add to that. This bill prohibits cutting of kelp in that district. What we are trying to find out is if there is justification for legislation to prohibit cutting of kelp. We must have reasons for it, based on the studies and the logical information that would definitely point to a reason for wanting to prohibit it.

MR. LIMBAUGH: I think so far there is no evidence to show that kelp harvesting is destroying the beds.



CHAIRMAN ALLEN: Mr. Limbaugh, while you are still there-- this matter of pollution comes up quite often, and I think you had a very good explanation that we discussed down there the day I was down to see you. For the edification of some of these folks who do not know, isn't it a true statement of fact that the induction of fresh water, or anything that may carry it, even the induction of fresh water itself, no matter how pure, is a decided pollutant when it comes into the sea?

MR. LIMBAUGH: I don't think you could definitely say that because a lot of the organisms along the shore are capable of withstanding fresh water pollution from runoff and things of that sort. It depends upon the organism you're talking about and it is a very complex thing.

CHAIRMAN ALLEN: Yes, but I mean the large quantitative induction of constant flow.

MR. LIMBAUGH: It can change the balance and change the communities in that area. That will not kill all organisms. It is unfavorable to some and favorable to others.

CHAIRMAN ALLEN: Does that conclude your testimony or does any member of the committee now have anything that he wants to ask this team?

I imagine that we will have similar testimony in San Pedro because there will be a great group of people who will want to hear your testimony there, also.

MR. THOMAS: I'm trying to rush this thing along, but there are many things that bother me. Who is supporting this bill, 3405, do you know?

CHAIRMAN ALLEN: Apparently Mr. Levering and the people along Malibu Beach, who are not present here this afternoon. However, we are charged by the Legislature, itself, having adopted the report of the Rules Committee, that this is one of the subject matters that this committee shall take up, which is in the scope of the committee.

Frankly, I think that this has been a very productive afternoon

here. The testimony of these people from Scripps will alleviate an awful lot of the complaints that are constantly coming in, where people say, "Well, the kelp cutters are doing it."

MR. THOMAS: I was asking who is supporting the bill that is presented here today.

CHAIRMAN ALLEN: I don't know anybody who is supporting it. So far no one has come forth and said "We're for this," or we'd have the list of people here. Mr. Levering and others have been notified. I know that Mr. Hayes, who used to run the Paradise Cove, and others have been notified by the Chairman.

Here is a very real problem that comes to Mr. Luckel, here. Various other people have a constituency writing them like the following:

"----has brought to our attention on several occasions the offensive odors caused by kelp that washes up on the beach near his home. This kelp is a direct result of the kelp cutting operations taking place offshore.

"We note that an Assembly Committee on Fish and Game will hold a public hearing in San Diego, October 2nd. Please advise if kelp cutting will be discussed and if Mr. Lowery and neighboring property owners should appear at this hearing to protest the loose kelp that is being deposited on the beach."

This is from the LaJolla Town Council and is a consequence when you have those people who write to an Assemblyman. After all, we operate under the Constitution of the United States, whereby the average citizen has a right to petition. Now, if this person were probably here, or some of their representatives, they have probably learned by now that kelp cutting, commercial kelp cutting, does not add to the pollution of beaches, that there are other methods. As a matter of fact, from what I have gathered from the testimony here today, I think the record will show that rather than to assist or cause this sloughing of kelp,



it prevents it. I think that testimony is well balanced all the way through here, and when it gets into its written form, we will see it. These are only their preliminary studies.

RAYMOND CANNON, LOS ANGELES, CALIFORNIA

Mr. Chairman, I am Raymond Cannon, member of a committee appointed by the Fish and Game Commission to advise on the necessity of the study that was carried out. To date we received the report and this has not been studied by the committee appointed by that Commission. Therefore, they are not able to evaluate some of the rather broad statements that I heard made today.

If they were to be taken by your committee as true, these statements that there is no relationship between fish life and kelp, that kelp cutting does not harm the kelp, then the commercial fishermen and the sportsmen of the State of California who are paying for this investigation would see no use in any further investigation. That would be the end of it if you were to take these things as conclusive proof that these things exist.

This kelp study has barely started this year. Other studies were made by the kelp companies, themselves. Reports were made by them and their scientists with which some people have disagreed; their findings were not considered as conclusive. Therefore, the Commission found that it was necessary to get a reevaluation of the kelp situation from the beginning and this program was inaugurated. This started a year ago.

There is a study to be made -- and it has not been completed -- on the relationship of fish life to kelp. As a matter of fact, there is nothing in this annual report, as I can see it at all, on the subject since a year has been spent trying to get someone to take the job, because of the poor salary the state pays for marine biologists. It is very difficult to find good men, but finally, they have succeeded in getting good men. In another year we can expect something of a

progress report on the relation of fish life to kelp cutting. We have none today that is recognized as being factual.

I think I am expressing the attitude of the committee that helped originate this study. Furthermore, we are not by any means contented with the kelp coast studies that concluded that there was no ill effect from cutting kelp, regardless of what time of year it was cut, and all these various things. There may be a time of year when cutting kelp would be very dangerous to the plants; we don't know; we don't have the specific data on that yet. We have to find it. We didn't find such data on other reports that were made. We didn't find these year-round studies made in various parts of the state. One, made in 1915, I believe, did show that if kelp was cut a certain time of the year, bacterial attack set in and it killed it back to the base. I don't know whether that has been refuted by modern scientists or not. It should certainly put a question in the minds of those who are continuing this study.

I had hoped that this study would continue, and we would actually find the relationship between fish life and kelp, which is the angler's and the commercial fisherman's point of view. They want to know. We do not know.

We need a scientific investigation and a very thorough study, and this study is under way and just getting under way. I don't think that anything you have heard today, in rather conclusive, broad statements, should be taken literally by you as closing the subject because it's wide open, and I think Dr. Hubbs will back me up in that. He is probably one of the greatest fish men in the world, and I'm pretty sure he'll back me up in the statement that we haven't yet learned what we would like to know about the relationship of fish life to kelp, which we must know before we probably lose a fishery, or maybe not.

These things are serious. The people who go out there, the anglers



who go out there fishing, find fish getting scarcer in those beds, in spite of all other kinds of protective measures, and there are some questions in their minds as to why the fish desert them.

From Mr. Limbaugh's report you will notice that he has some 20-odd organisms that live on the canopy of the kelp that are eaten by fish. Perhaps there is a direct relationship here. Perhaps there are many things to consider here.

He mentioned in one place that the young kelp bass would probably have a better chance if it had a canopy that extended from the kelp bed out to the deep pools where it goes for other protection. Perhaps the kelp beds serve as a protection for young fish, the surface kelp, and if you cut it during the spawning time or during the time they are very young, they may be subjected to a very heavy predation from birds and things that they couldn't get away from without this protection. Perhaps these things are true. We must find out these things. They have not yet been concluded, and we must continue this research program to find out.

As far as the bill in Santa Monica is concerned, I wouldn't be able to advise you on it because the people who evidently presented it have not had a chance to study this program, and could not get up here and wisely discuss it until after they had studied the program that is just out today, so I would ask you to please postpone that particular subject until such time as the people who presented that bill will have a chance to study these results. Thank you very much.

MR. THOMAS: Have you read this report?

MR. CANNON: Quite thoroughly.

MR. THOMAS: It took five and one-half years of research and assignments by Dr. Hubbs. The summary result of this report says: "Kelp cutting has no effect on fisheries, on fish population." It says in the summary and conclusions that harvesting has had no detrimental

effects on fish population, and those species most closely associated with the harvested area maintain a high population level. This is a very good report.

MR. CANNON: I don't want to go into a discussion of this report.

MR. THOMAS: I want to compliment Dr. Hubbs. I had never met the gentleman, but I want to compliment him for the type of work he is putting out.

MR. CANNON: When I read the reports the first remark I made was that this is a great contribution to science, but specifically, in detail, I have never seen the data on these particular investigations. I don't know how broad they were, but they did not convince me. They weren't convincing, in other words, just by seeing it.

MR. THOMAS: In other words, you are not convinced unless it is agreeable with your conclusions.

MR. CANNON: Not at all. I don't want to make this program any longer.

CHAIRMAN ALLEN: May the temporary chairman make this observation? I went up and examined the Paradise Cove. I went up and stayed there about two days and listened to all of the complaints and so forth, and I had scarcely left the area, with the dire prediction that they were all run out, until they had the greatest white sea bass run in history, and the greatest barracuda run, and they were even getting yellowtail up there and, for the first time in twenty years, dolphin. So, I don't know; I love my California, but sometimes I think we ought to change its name -- keeping the Spanish -- to "Los Ranchos Los Belly-achers."

Mr. Andy Kelly wants to make a statement.

ANDY KELLY, PRESIDENT, FISH AND GAME COMMISSION

Mr. Chairman, Mr. Assistant Chairman, distinguished ladies and gentlemen, I'm afraid my statement might be coming about an hour late.



The Commission's name has been used advisedly. Please do not interpret anything I say as professional jealousy because the Commission only exists through the good will of you gentlemen. About two and one-half years ago when I first got on the Commission there was quite a bellyache about this thing from Paradise Cove. Bill Swanson said they should cut out all kelp cutting, that it was ruining everything. The kelp people said differently, that a report had been completed by Scripps to the contrary. We jelled the thing, brought it to a head, and had quite a few meetings on it.

The Commission, believing as we do now, that we were well advised among ourselves and from outside sources, appropriated \$200,000 of your money, everybody's money, to make this investigation.

I'm a little chagrined today. I hadn't seen this report, although I thought our Commission ordered the investigation. I was very interested in the testimony. I thought there was certain conflict. I understood Dr. Carl Hubbs (for whose opinion I have the highest regard) to say, somewhere in the early part of his testimony, that he welcomed further investigation. This thing hadn't been completely determined to everyone's satisfaction. Doctor, if I'm wrong, would you interrupt me now? And yet I also heard that you signed a report that conclusively says -- my good friend here states -- that kelp harvesting is not injurious to the fishing. That leaves a person a little confused.

The point is that I get the feeling that maybe certain very bold statements were made today that weren't really intended that way. One of your young gentlemen, doctors, said definitely, conclusively, that harvesting was not injurious to kelp life, apparently.

I don't know the answer; I'm sure I don't. If I knew the answer, as President of the Fish and Game Commission, I would do everything in my power to stop, immediately, further expenditure of this \$200,000. But until we know that answer, gentlemen, until something is quite

conclusive, I think we'll have to keep our minds very open on it. I only say that because I don't feel the Commission needs defense. I'm merely explaining our action.

You have more information than the other three members of the Commission had, Mr. Elser, and I heard this today. This is the first we have heard of this and, gentlemen on this committee, we will appreciate it if you will come before us some time when you have a report to give us. We think we have created you, and think we deserve that courtesy. Thank you very much.

MR. THOMAS: You realize the Commission grants the licenses, don't you?

MR. KELLY: Yes, it is one of the few powers we have in the ocean, other than the sports fishing.

MR. THOMAS: So you're satisfied. Otherwise, you would have stopped it long ago.

MR. KELLY: If we felt conclusively that this was damaging a natural resource that we were in charge of and had responsibility for, we would have stopped it long since and not have asked for \$200,000 of everybody's money to be spent to get the real truth.

MR. THOMAS: So, apparently, no proof has come yet.

MR. KELLY: It would seem that way, wouldn't it?

MR. THOMAS: Yes, thank you.

MR. ANDERSON: I would like to check with Mr. Limbaugh. He suggested in his earlier testimony that it would be a good thing if we increased the number of kelp beds along our coast. Did I understand you right, Mr. Limbaugh?

MR. LIMBAUGH: That's right.

MR. ANDERSON: Do you have any proposal as to how that might be done, or have you reached that conclusion yet?

MR. LIMBAUGH: Well, I think that by the introduction of artificial



substrate, or possibly actually raising young plants in the laboratory, we can increase the extent of the kelp beds if that is desirable. You will, of course, have more kelp on the beach if you have more kelp in the ocean. It is possible, with this artificial substrate, to increase the cover for fishes.

I think ocean improvement would probably be the most productive line that we could follow. For instance, take an open sand bottom and somebody has dropped a bucket or a 50-gallon drum on that bottom -- when that has been there for any length of time you'll find plants growing on that. You'll find fish resting around this 50-gallon drum, or taking cover inside, and there will be lobsters inside of it.

We have vast stretches of sandy beaches where no kelp is growing.

I think that Mike Neushal's work, and Wheeler North's work, Dr. Clendenning's work and Dr. Sargent's work will all contribute to our knowledge so that within a very short period of time we will be able to begin experiments in planting kelp. I have not actively engaged in the kelp program, myself.

CHAIRMAN ALLEN: We have here a gentleman that I met quite by accident, who has brought a common sense statement to us that I think Dr. Limbaugh and the others have heard. They are rather enthusiastic, and perhaps we could invite Colonel Todd of the U. S. Marine Corps to testify or make any statement he could make in about five minutes.

LT. COL. GLEN L. TODD, PRESIDENT, EL TORO ANGLERS' CLUB, SANTA ANA

I have a degree in zoology. As a fisherman in an angling club, my interest is in catching more fish. I want my boys to catch more.

When I was in North Carolina, off Moorhead City, we fished over six sunken ships that had been sunk during the war by the Germans. Before the war there was no sports fishing to speak of out of this harbor; now there must be about a hundred boats working off Moorhead City.

The boats that are sunk there are a tremendous source of forage

fish. You look down when you are over them and you just see millions of little fish. Another thing about them is that they produce something solid for plant and animal life to grab on to, which is a source of food for fish, and I also believe that they are a protection for small game fish.

With all the forage fish, and protecting the small game fish, this produces a lot of large game fish and you can go over those boats and catch amberjack and lots of fish that come in. I believe a lot of the migratory fish remember where they are sure to get a good meal, and they come in there.

So the majority of the fleet there fishes over these boats. Sometimes, during migrations, they will fish offshore, but still it's the place to go when there is nothing offshore. You can be assured of one place to catch fish. We catch a small black bass that is similar to our sandbass and you can get gunny sacks full of them over those ships at any time.

Regarding kelp, I was thinking that we are losing kelp due to civilization. As they say, there are many factors. The loss of kelp does lose fish for us. We have an increased population of fishermen now. There is one thing that we can do to increase the fish -- by sinking old wrecks or putting something out in the ocean, offshore, on this barren sand. This method has been proven. I talked to Dr. ZoBell and his associates and they are for it. The marine biologists of the state wrote to me and told me that their ideas coincide with mine, and I have had letters from the Federal Wildlife Department in Washington which said they thought it was a wonderful idea and that they are working on it. I offer it as one idea, to increase the fishing in our ocean, that is not controversial, I hope. Thank you.

CHAIRMAN ALLEN: Thank you, Colonel Todd.



L. D. PRATT, KELCO COMPANY, SAN DIEGO

I would like to talk first on A.B. 3404, which had to do with the privilege tax.

Originally, it was presented to change the tax from 5 cents per ton of kelp to \$5 per wet ton of kelp. I think it is important that you gentlemen realize what an industry the kelp industry is. It is unique to California only, due to the large kelp beds we have in the waters here.

The only place where there is any kelp of economic value in California is from Point Conception down to our border. The industry is still in the pioneering and development stage, and encouragement is essential for it to continue to progress.

We employ many highly skilled people, in laboratory work as well as in production. Large sums of money have been spent and we are continuing to spend it in the development of the industry. Several million dollars have been invested in plant and research equipment. I know more will be invested in it if the industry is able to continue its growth.

This essential industry was given a very high priority during the last war; its products were used by the armed forces for a great many purposes.

I think it is very important for you gentlemen to realize that we are now receiving much competition from imported kelp products, particularly from Japan, Norway, France and Great Britain. This has been growing rapidly since 1950. Prior to that date there was little competition of this nature but these foreign products are now being brought in to compete in fields that have been built up by we Americans. Labor rates and costs of materials are substantially lower in these countries than they are in the United States, of course.

This imported algae is claimed to be equal to ours, and it is

being sold in this country at approximately 10 per cent under our prices. During a short period of five years, imported algae have taken over 40 per cent of the business that we had developed in the textile industry.

You must remember that a wet ton of kelp contains approximately 89 per cent water. Thus, the raw material itself has a very low value, and the high cost attached to it will be magnified many times in the finished product. We certainly don't want a repetition of the fate of our great tuna industry which has been hit so hard by foreign importations, which has affected adversely both this locality and the State of California.

To my knowledge, there has been no presentation outlining why any increase is necessary in the privilege tax. The privilege tax on kelp which is protected by lease is now 10 cents per wet ton, and it would be expected that the tax per ton on kelp, in open beds, would not be so great as on those beds on which there is protection.

In consideration of these facts we hope the committee will agree with our position that this is not the time to increase the privilege tax per ton of wet kelp.

Now I'd like to speak on A. B. 3405. Kelp was first harvested in huge quantities in southern California during World War I, and has been harvested continually by our company for the past thirty years.

Though there has been considerable controversy regarding the effect on fish life and beach litter due to kelp harvesting, there have been no facts to indicate that kelp harvesting is detrimental to either. On the contrary, there is considerable data which indicates kelp harvesting improves the kelp beds and reduces beach litter.

Attached I have an article by W. L. Schofield, entitled "The Harvesting of Kelp in California", dated November, 1934, which states: "It has been shown that proper trimming maintains the kelp beds in a more



healthy condition, and tends to carry beds over the periods of summer sloughing by inducing vigorous new growth."

You have heard the testimony from the people from Scripps today regarding their observations. Our own observations during the thirty years we have been operating have also convinced us that proper harvesting does not contribute to beach litter but reduces the amounts of kelp that float ashore. The recent study by the Institute of Marine Resources has concluded, as you mentioned here, that kelp harvesting, as currently practiced, has no serious, detrimental effects on fish. I have attached a copy of that report.

It is also a fact that during this same period of time, the sports fishing industry has grown tremendously, and fishing pressure has become very heavy in the same areas where kelp has been harvested.

I would like to tell you gentlemen how our company alone has just completed a quarter-million dollar research laboratory. In fact, we just moved into it yesterday, out here on Kerney Mesa. We are using many doctors, Ph.D.'s, and so forth, in order to help our industry to progress. Right now we are also building a new harvester which would cost several hundred thousand dollars, so designed that we obtain kelp from beds as far away as Point Conception.

A wide range of uses for kelp and kelp products has been developed. The attached pamphlet on kelp indicates some of the many products in which algin, the natural gum from kelp, is used. This algin is used in a great many pharmaceutical products such as penicillin, terramycin, sulfa, hemastatic powder, surgical jellies, orthopedic compression compounds and other such compounds. It is used in many miscellaneous food products, dairy products and many industrial applications.

Equipment used for the harvesting of kelp is all specially designed and very expensive. As improved methods of harvesting are developed, equipment is redesigned and installed to insure the most efficient

harvesting. Any loss from a properly designed and operated harvester is negligible in comparison to the amount of kelp that is broken loose either from natural causes or by boats that frequent the kelp beds.

In our opinion, there is presently ample provision for the enclosure of kelp beds in accordance with Section 583 of the Fish and Game Code, which states that the Commission has the right to close it under certain conditions. And Section 587 states that the Commission may revoke and refuse to reissue -- for a period not more than one year -- the license of any person or persons.

In connection with this section regarding the rules and regulations, the Commission attaches a copy of the policy on kelp harvesting, dated December 1, 1950, which states in paragraph 7 that kelp shall be cut in an efficient and workmanlike manner, and proper care shall be taken at all times to avoid and prevent kelp from being washed ashore or deposited on the beaches and shores of the State.

Enclosure of the area proposed by this act would seriously affect the industry. It would mean that harvesting would have to be done at greater distances from the plant and during adverse weather conditions this might even become impossible.

We are opposed to the provisions of this bill.

CHAIRMAN ALLEN: Thank you.

DR. JESSOP: Mr. Chairman, members of the committee, I represent the San Diego County Wildlife Federation, with some two thousand members. In our group we include all types of sportsmen, skin divers, surf fishermen, boat fishermen, and so forth. We have a pretty well-rounded observation of the kelp situation.

We are of the unanimous opinion that kelp cutting does not interfere with the sport fishing industry. It may interfere with some very minor fishes which are very rarely caught and have no particular value, but in no way does it interfere with the sport fishing industry, as



attested by the fact that this year we caught four times as many yellow-tail as ever before in the history of San Diego.

I would like to point out that in view of the fact that we can see no evidence whatsoever that kelp cutting interferes with the sport fishing industry, and because of the fact that a good, healthy kelp bed is good for sport fishing, we would advocate the continued cutting of kelp beds.

The next point I would like to make is if such a survey is contemplated, that rather than take an entire bed, you take half of a bed, because you can't take a bed of Palos Verde and compare it with a bed of Oceanside and get any kind of an opinion. For instance, there used to be a very good kelp bed at the northwest corner of the south Coronado island which is no longer in existence, disappearing not through any population cause, not through any pollution, but because of factors which have not been mentioned here today -- very subtle factors, no doubt. I'm sure that the population of the United States and Mexico had nothing to do with it, and yet if you had taken that bed and compared it with one off Point Loma, for instance, you would have received a very misleading impression of what happens to kelp beds.

So I urge you to take one-half of one kelp bed and experiment on it, and leave the other half uncut. In other words, cut half and don't cut half, and compare your results that way rather than comparing two separate kelp beds.

The next point I'd like to make is this: I believe the instigation of the increase in the fee which this bill contemplated possibly had something to do with the increase in all of the sport fishing licenses and the commercial licenses which occurred because of the Fish and Game deficit. I believe that was the condition that gave it the initial impetus, and I would recommend -- or our group would recommend -- that a fair and moderate increase, if any, be contemplated because of

the economics involved. These people should not be run out of business. We actually feel they do us a benefit. Thank you.

MR. SCHRADE: You mentioned the fact that our yellowtail fishing had improved some four times greater than any preceeding year. Isn't that a fact as to all the sports fishing here in the San Diego area this year?

DR. JESSOP: Yes, and I can't say it's entirely due to kelp cutting or not cutting. My point is that it is not a factor. In other words, kelp cutting didn't hurt it; let's put it that way.

MR. SCHRADE: Yes, but I still want to establish the point that the sports fishing in San Diego this year has ---

DR. JESSOP: -- far exceeded anything since I was a child.

MR. SCHRADE: Thank you.

MR. THOMAS: I'm not talking about the pressure of sports fishing. I'm talking about fish. There are lots of fish here now?

DR. JESSOP: We caught 160,000 yellowtail in the sport fishing industry alone this year, as against 40,000 in our past year or two, or three years ago.

MR. THOMAS: There is a lot of yellowtail.

CHAIRMAN ALLEN: Dr. Jessop, you have heard the testimony of Colonel Todd wherein he said we do have these beaches where they don't provide the rocky terrain and the other cover. What was your impression as to the practicality of such a plan to develop this extra strata?

DR. JESSOP: The plan would work, as attested by the fact that you can go out on any jetty and catch a multitude of fish where, before the jetty was put in, there was no fish. However, I'm wondering if that isn't a pretty expensive way to do it? In other words, we have rock ledges out there which are now not supporting kelp beds. If we can arrive at the answer as to why they are not supporting kelp beds, maybe we can come up with a cheaper answer for growing the kelp beds



where there are already rocks.

We are in favor of kelp beds, and they do what he said. In other words, a kelp bed will do the same thing as a sunken ship. I haven't given it too much thought, but it seems to me that sinking old ships or putting out rock jetties or false rock bottoms is a pretty expensive way to do it, and there must be some way of utilizing the rock ledges we already have.

CHAIRMAN ALLEN: Well, we have enough of these old concrete barges that they made during the war, or these transport ships that they found to be impractical that are lying up here in "Rotten Row" that do cause a very definite pollution up in the river, the estuary in Oakland, that we know of -- what would be wrong with the idea of bringing them down here cheaply and breaking them up?

DR. JESSOP: Not a thing. It would be really good. Just as he says, it would accumulate a multitude of fish.

CHAIRMAN ALLEN: Thank you. Now we have about exhausted the kelp cutting, Mr. Chairman, and I'd like to turn it back to you.

MR. BELOTTI: There was a gentleman here who raised his hand.

CHAIRMAN ALLEN: Mr. Carmichael -- I'm sorry I overlooked you.

MR. CARMICHAEL: With reference to sinking a ship out on our coast, I would like to say that I fished the Atlantic coast in 1915 for quite a few years, and even at that time old barges or ships that had been sunk were ideal locations for certain types of fish, mostly the Atlantic sea bass, but the Atlantic coast is nothing like the Pacific coast in construction inasmuch as it is practically a flat plain. It has a very gentle slope all the way from the coast way out until eventually it becomes deep, whereas here we have a deep coast with a very short, shallow plain.

If you take a boat and go out off our coast with a pedometer, you'll notice that you run on a flat and then almost immediately you'll

run into a spire of maybe 150 fathoms, or 10 fathoms, or 7 fathoms or 27 fathoms, and those rocks, those pinnacles would afford exactly the same condition that they would have over on the east coast with these boats. I think it would be an expensive proposition to try to duplicate what you're talking about on the east coast. I think our natural conditions are ideal as they are.

CHAIRMAN ALLEN: This gentleman back here -- Reg Richardson.

REG RICHARDSON, LAJOLLA

I have been a resident of this area all my life. I'll make this quick and short. I would like to pinpoint some observations such as those made by Connie Limbaugh.

I have spent around 17 years swimming on top of the water -- pretty fast, in competition -- and nine years as a diver. I have watched the conditions of the kelp. Its receding is due to what I would consider pollution and not the effect of kelp cutters. In one particular instance, about seven years ago, the LaJolla-Hermosa area had not been cut for years. The kelp canopy was solid. When you went on the bottom all you saw was a graveyard, with not even crabs, much less fish or lobsters or abalone or sea urchins or any kind of life. I talked to a representative of Kelco Company and had him come up and cut that area, and since then, that particular place has taken on a new life. It was just like a valley that received a lot of sun. As soon as they cut the kelp life started entering that area. You can see fish there now where you never saw any sign of kelp bass or hardly any life at all. So the cutting of the kelp helps in that respect.

Also, when storms come through, if there are 30 or 40 feet of fronds on the top the storms will tear the whole plant off and dump it on the beach. I'm sure many of you have seen that after a storm -- the beach is just loaded, four, five, six feet high. Kelp cutting



also helps in that condition.

As to that letter from LaJolla, I am a resident of LaJolla and belong to the Council, and I did not know this letter was sent in. I believe if you investigate the situation you'll find out that the kelp -- what they call kelp -- is rotting eel grass which sloughs off at certain times of the year, piles up on the beaches, and gives off a terrific stink. It is inaccessible for city crews to get in and clean it out. But it is not the macrocystis kelp or the giant kelp that we know, out in the beds, that is causing the trouble. That has been happening for years. You can drive right down around the corner of Turquoise, onto LaJolla Boulevard, and it hits you right in the face. In fact, today you can probably smell it as I smelled it yesterday.

MR. THOMAS: Shall we eliminate the cutting of kelp? Are you for it or against it?

MR. RICHARDSON: Against the stopping of kelp cutting.

MR. THOMAS: You are for kelp cutting.

MR. RICHARDSON: Yes, sir.

CHAIRMAN ALLEN: I'd like to ask Mr. Richardson one question since we've got the subject open. In your experiences with Mr. Limbaugh, do you concur with Mr. Limbaugh and Colonel Todd that where such things as an artificial oil drum or any other body such as an automobile body has been dropped in, has it been your observation that this encourages and gives a refuge to fish life?

MR. RICHARDSON: It seems that about anything that kelp will attach itself to, the spores will have a tendency to attach to it, if they can by the natural currents which carry them around. So if articles can be placed there I think they might attach themselves and they might also be transplanted. I've seen it done.

CHAIRMAN ALLEN: I think this concludes the kelp, Mr. Chairman.

The rest of it is yours.

(Mr. Belotti resumed the chair.)

CHAIRMAN BELOTTI: Thank you very much.

MR. ALLEN: I want to thank Scripps Institution and those gentlemen from that Institution because I think it's one of the greatest institutions we have in California.

CHAIRMAN BELOTTI: We'll have a five-minute recess.

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CHAIRMAN BELOTTI: All right, the meeting will come to order.

Mr. Allen?

MR. ALLEN: Mr. Chairman and members of the committee, it has been brought to my observation by some of the witnesses here that heretofore (and I think the record will show that) a good number of people from our area around Los Angeles have testified here. We have had some from San Diego. Some of these folks from San Diego are going to find it impossible to make the San Pedro meeting, and some of the witnesses from the Los Angeles area say that they will be at the San Pedro meeting. I wonder if we couldn't confine ourselves to the local groups on such subjects as we may want to discuss, which I think would cut down the time of hearing of this committee, by confining it to the people of San Diego who cannot attend the meeting in San Pedro, and then ascertain the number of people who can be heard in San Pedro, deferring their testimony to San Pedro to take care of those who want to testify here from the local area.

CHAIRMAN BELOTTI: Well, we certainly want to avoid a duplication of testimony. To those of you who are here and have testified on a subject matter, certainly there is not going to be any necessity or any need for presenting the same testimony to this committee in San Pedro. I think some of the so-called experts should be there because the people in San Pedro are going to be interested in their testimony,



as they are not familiar with it.

The next subject we have is that of abalone.

MR. THOMAS: I have a suggestion to make, Mr. Chairman. We are all familiar with these bills on the abalone, spiny lobster, white sea bass, anchovies and yellowtail, Pacific mackerel, and so forth. They are all introduced by the sportsmen to eliminate the taking of these species commercially. Now, are the sportsmen here to testify?

CHAIRMAN BELOTTI: I don't know. I assume some of them are here.

MR. THOMAS: I don't see them on the agenda. I would like to find out what the testimony is by the proponents of these various bills. There are six of them.

CHAIRMAN BELOTTI: One gentleman has already raised his hand to evidence that he is here to testify in behalf of the sportsmen.

MR. THOMAS: We know who is opposed to them.

CHAIRMAN BELOTTI: I think we can group them all, and when you are presenting the testimony, you may touch on all of these subjects if you will, making it as brief as possible. I think that will expedite the proceedings. I want to finish up here, so we'll stay on just as long as we have those who desire to present testimony. I think we can finish it up in about an hour or an hour and a half. Mr. Gilchrist?

JOHN GILCHRIST, NORTHERN CALIFORNIA SEAFOOD INSTITUTE

Among my members are the principal abalone people in California. I would like to follow Mr. Thomas' suggestion and I will defer any statement I may have in deference to him. However, I would like to say this: we do not like to see any changes in the present abalone laws. I would like to ask the committee this: will the committee schedule a special hearing on abalone? Because we would like to propose as an industry, the seafood industry of the north coast. That is all I have to say. Thank you so much.

CHAIRMAN BELOTTI: Well, as chairman of the committee, Mr. Gilchrist,

and representing the north coast, I can tell you now that I feel that if a meeting is requested I certainly wouldn't want to deny anyone the right to an open hearing, but I can assure you that any time you open that subject on the north coast you're going to meet with very definite opposition, not only from the chairman but everyone from the north coast.

MR. GILCHRIST: Mr. Chairman, I know your position on that, but I'd still like to have that hearing on it.

MR. THOMAS: Let me ask a question. Who are the proponents? Who are supporting these bills to eliminate the taking of abalone, mackerel and so forth? I'd like to hear the testimony.

CHAIRMAN BELOTTI: All right, is there anyone here who has an interest in the sponsoring of the bills to put those prohibitions into effect? Certainly, if no one has come here to discuss the matter of this legislation that has been referred to this committee, I don't see any reason for sitting here and trying to listen to testimony.

DR. JESSOP: Could I simply explain my position, as a sportsman? On those three bills which you just mentioned -- abalone, spiny lobster and white sea bass, our particular Federation has gone on record as not opposing the present regulation, the present season and situation. We did not sponsor the bills. We are not in favor of the bills. We like the situation as it is.

Now, I just wanted to explain our local situation. Possibly the man from the California Wildlife Federation won't like that, but that is our local situation.

CHAIRMAN BELOTTI: Mr. Rossez?

MR. ROSSEZ: Speaking for the California Wildlife Federation, it has not taken up this subject so I'll have to go on the record it had of last year. They favored these bills proposed by the O.F.P.A.

Now, changing hats, since President Bob Vile of the O.F.P.A. could



not be here, I have the report of the research committee of the O.F.P.A. but, of course, all I could do would be to read it to you. I could not answer any technical questions. So, if it will be satisfactory to the chairman, I can present this report to you for your consideration.

CHAIRMAN BELOTTI: Yes, absolutely; I'd like to save your time. Some representatives of the O.F.P.A. will be at the San Pedro meeting, and I think that will be the time to take up the subject.

Is it the desire of the members of this committee to hear testimony on the subject matter on the agenda from such witnesses as are here, or anyone from the Department of Fish and Game?

MR. THOMAS: I'd like to get just a brief statement from the Fish and Game Department as to whether or not they are supporting these bills.

RICHARD CROKER, DEPARTMENT OF FISH AND GAME

May we take these up one at a time, Mr. Chairman? I can't make a blanket statement on them.

CHAIRMAN BELOTTI: Start out with the abalone, A. B. 3704.

MR. THOMAS: It says it's unlawful to take or possess abalone for commercial purposes in these particular districts -- 6, 7, 15, 16, 17 and 19-A.

CHAIRMAN BELOTTI: And also the area north of Point Lobos.

MR. CROKER: Mr. Chairman, at the 1955 session of the Legislature, the material embodied in Mr. Johnson's bill was passed by the Legislature as a sort of compromise measure between certain of the commercial divers and some of the sportsmen. It had a two-year expiration, and Mr. Johnson's bill was designed to continue it in effect.

At the time the bill was first presented in 1955, the Department supported the bill. Again, in 1957, we would like to have seen it or some in-between measure enacted. I feel that some of the less featured provisions of this bill are highly desirable, and I think perhaps --

for the protection of the commercial diving industry -- it should be reenacted.

As for closing the southern California coast, that is almost entirely a measure to avoid friction between the three different groups of fishermen, rather than as an out-and-out conservation measure. Such a minor part of the commercial take is made along the southern California mainland that there is no great effect on the resource. We have no evidence to show that reopening it will, in actuality, affect the resource adversely.

However, reopening it has reopened some wounds. Already, three violators have been apprehended. They are the fly-by-night type of divers. The week-ender who interferes rather drastically with the operation of the commercial fleet is back at work in very large numbers. I am sure that, eventually, that situation will be taken care of by the industry itself because these people are giving them a bad name.

Some means must be found to clear this up. I do believe -- and I'm sure everyone would agree -- that the provision for staying 150 feet from shore, which was in the two-year measure, might well be reenacted. There is nothing that stirs up more trouble than having a diver in closer than that. The 20-foot limitation is a very difficult one to comply with, or to enforce, either one, so there are features of this bill which I think should be reenacted. But the Department is not going out, beating the drums, to support the measure as it stands right now.

MR. THOMAS: Are the abalone fisheries in good health? Is the fishery stable? Can it be fished?

MR. CROKER: The fishery is about as stable, Mr. Thomas, as any fishery. We have two abalone fisheries, speaking commercially -- the one for the red from San Miguel on north, and the pink abalone around the other channel islands. The red abalone is on a pretty good,



sustained yield basis. The catch trend is almost level; production has held up remarkably well for many, many years. I would say the red is in excellent condition.

The pink abalone was not harvested until 1943, when channel islands were opened. That is where the pinks are, as well as a few around here, San Diego. You might say the cream was skimmed off. The large pink abalone, that had been accumulated for years, has been skimmed off. The fishery now depends upon the entry of young abalone going into the fishery, and there has been a considerable decline but we expect it to level off at about the expected productivity.

By and large, I'd say the abalone is in a good state.

We have our abalone biologist, Mr. Cox, with us today in case there are any technical questions about the resource and its condition. I have had this information from him, but if there are any specific questions, he has been diving down here now for the past couple of months and I believe he can answer them.

MR. THOMAS: Your conclusion would be that it is not necessary to completely eliminate the taking of abalone, commercially?

MR. CROKER: Oh definitely. You mean statewide, Mr. Thomas?

MR. THOMAS: Southern California.

MR. CROKER: Oh, yes. I would like the committee to consider some slight changes, moderate changes in the abalone law at present, and perhaps we could get into that at further hearings, but nothing as far-reaching as might be contemplated.

CHAIRMAN BELOTTI: Then the next one, Mr. Croker, would be A.B. 3342 on the spiny lobster.

MR. CROKER: That is the one that closes an area to spiny lobster.

MR. THOMAS: Mr. Chairman, I was going to make this suggestion. During the last session of the Legislature, the sportsmen introduced all of these bills and supported them, and tried to pass them through

the Legislature. They referred them to this committee. They were to eliminate the taking of abalone, the spiny lobster, sea bass, mackerel and barracuda. I'd like to hear the testimony of the sportsmen on these particular subjects as we go along to find out whether or not they are still in favor of these bills.

MR. CROKER: Mr. Chairman and Mr. Thomas, most of the proponents, I believe, are from the San Pedro-Los Angeles area.

MR. THOMAS: Will you be in San Pedro?

MR. CROKER: Yes.

CHAIRMAN BELOTTI: Anyone here who would like to present testimony relative to the spiny lobster bill before this committee at this time?

HERBERT DAVIS, CALIFORNIA FISH CANNERS' ASSOCIATION

That man will be at San Pedro, Mr. Chairman. Mr. Rossez handed in to the committee a report of the Ocean Fish Protective Association, presumably upon these bills. Since the O.F.P.A. was the proponent of the bills, and that evidence is now before the committee, I'm wondering if we can arrange in some fashion to have that evidence made public so that the opposition to the bills will know, at least, what the proponents submitted in the bills? I don't want to take your time to have you read it now but I think, definitely, before the committee conducts any hearings in San Pedro that this testimony should be read so that those of us who are interested in the subjects will know what the position is.

CHAIRMAN BELOTTI: Well, we can certainly ask him to read his report here for the benefit of everyone present.

MR. ALLEN: Do you have it handy?

CHAIRMAN BELOTTI: The report is here.

MR. THOMAS: Would the O.F.P.A. president be in San Pedro?

CHAIRMAN BELOTTI: Will you be in San Pedro, Mr. Rossez?

MR. ROSSEZ: There will be a representative there.



CHAIRMAN BELOTTI: You come up here and read that report into the record, please. That will take care of the situation.

MR. ROSSEZ: May I have the privilege from the Chair of reading it as it is in order here, instead of as the subject matter is on the agenda?

CHAIRMAN BELOTTI: Read it just as you have it.

MR. ROSSEZ: Okay.

"Anchovies -- A.B. 2508. Suddenly the bottom seems to have dropped out of the anchovy population, as has been predicted for the past two years. For the first time in years, bait netters have gone for days without finding bait-size fish. The Department of Fish and Game has encountered very few schools in its very efficient plane spotting and other surveys. The U. S. Wildlife found a very weak spawn in southern California waters.

"These signs are frightening, or at least should be, to all concerned in ocean fishing and fisheries. The anchovy is our last important forage fish. Since the almost total depletion of other forage species which once formed a great part of the foodstuffs for game fishes, the anchovy has served as a substitute. Without an abundance of anchovy it seems doubtful that any southern California sport fishery could survive except for opaleye and surfperch.

"We insist again that the anchovy should not be tampered with commercially, at least until we are sure of a sustaining abundance. We feel it would be very unwise for the state government to gamble its whole sport fishery for the few extra dollars it could gain for three or four years by unleashing unlimited commercial predation of the species.

"This legislative committee has accepted the responsibility of collecting facts and advising the state government of conditions. It seems reasonably sure that if the anchovy is allowed to be depleted

by lack of protective measures, as was the sardine, this committee will be thought responsible.

"Let me repeat -- until we know that there are more anchovies than are required in nature's demand upon them, we should discourage any increase in commercial take.

"The California Yellowtail.

"As far back as 1933 the State Legislature recognized the yellowtail as an important game fish, and started passing laws designed to protect it: (1) prohibited round haul nets and seines; (2) prohibited commercial canning of yellowtail caught in California.

"These laws failed, as seiners and other commercials shifted to Mexican waters, where they intercepted migrating schools and overfished them to the point where by 1946 the angler catch dropped to 19,000 pounds from an annual take of 327,000 pounds ten years earlier.

"Since that time (1946 and 1947), when close to ten million pounds were taken in Mexico by commercials, the number entering California waters has been a fraction of former times. (In 1918 commercials took nearly twelve million tons in California waters.)

"Return of the Yellowtail.

"If there is an increase in population the only logical reason for it is the small amount taken by the commercials since 1953 -- a conclusive proof that it is a game fish.

"Table of Commercial Catch

|                  |            |
|------------------|------------|
| 1953             | 2,606 tons |
| 1954             | 835 "      |
| 1955             | 31 "       |
| 1956             | 392 "      |
| 1957 (to August) | 104 "      |

"If there is no increase, but a large northern movement because of temperature change, the population is in danger of being overfished by anglers, and angler bag limits should be drastically reduced, with no sale allowed for commercials.



"It may be noted that a few more yellowtail occurred in California waters at Coronado Islands, or in Baja California, in 1957 than during any year since before World War II. Regardless of whether it was temperature or increase in population, a few years of rigid controls should restore something of the former abundance.

"There is ample scientific proof that the California yellowtail migrates here from northern Baja California, but no evidence at all that it moves into or out of the Gulf. This gives us a limited population which is subject to overfishing. There are no scientific facts proving that it has not been overfished, and until such facts are presented, this fish should be set aside as a game fish and regulated the same as fresh water bass and trout, or ducks or other game species. The yellowtail is southern California's most prized game fish."

On A. B. 3258 -- "White Sea Bass.

"We cannot rightly say that the white sea bass population has increased enough to warrant an optimistic outlook. The appearance of a few more north of the Mexican border seems more likely to be a shift from the Ensenada area. Certainly, there is no evidence showing that the population is approaching its former abundance when the commercial take was 3,000,000 pounds in 1922, mostly in California waters. Less than one-sixth of that amount is taken today, with two-thirds coming from south of the border.

"Angler catch in 1949, 65,545 fish; angler catch in 1956, 19,755 fish, many of these undersized young.

"As far back as 1936, Richard Croker, writing in the Fish and Game Bulletin No. 49, said, 'The white sea bass is one of the most highly prized game fishes of California,' and that 'There is definite proof that the supply of (white) sea bass has been seriously depleted'; also that 'several necessary restrictive measures governing the white sea bass fishery have been enacted.'

"The decline was not halted by the piecemeal legislative measures. However, credit is due Croker and a legislative body for sincerely trying to put conservation into practice, as well as for their recognizing the importance of the species as a game fish. A consideration that seems to have been all but forgotten in recent years, despite an enormous increase in number of anglers and their intensified interest in this species.

"There seems to be little logic in continuing a commercial pursuit for a fish that no longer supports a single commercial boat, but is occasionally taken by some 13 netters who fish for other species. Two of these are said to be purse seiners working below the border. Their catch is reported to exceed all others combined.

"In contrast, there are one and a half million anglers in California and it is safe to say that more than a third of them would spend considerable to catch one white sea bass and enjoy a fine day of recreation doing it.

"Will the state continue to ignore the recreational needs of one-fifth of its citizens by allowing its self-sustaining marine sport fishery to be depleted beyond recovery?

"It is our conviction, beyond doubt, that this fine fish should be set aside officially as a game fish, with no sale or landing for the purpose of sale in California permitted, until such time as it becomes more abundant than the angler demand."

"Barracuda.

"Each fish population presents individual problems. The occurrence of a rather large late run of barracuda could (1) happily be attributed to an increase in the population, or (2) unhappily, to a northward shift.

"If the former (1) condition prevails, we may consider the increase was due to the abundance for the past four years of anchovy, which may



have provided such a large food supply that young barracuda became less attractive to predators, and therefore escaped to grow up. With less anchovy, they may have been wiped out.

"If the latter (2) and the whole or major part of the population has moved from its limited southern range to southern California, where it is subjected to both angler and unlimited commercial pressure, the species is in great danger of being depleted.

"The California species of barracuda now ranges less than 800 miles -- Point Conception to San Juanico Bay. It once extended to Canada in the years 1904 to 1909.

"Because of the importance of this fish to the enormous number of southern California anglers and the enterprises depending upon it almost entirely, we suggest that fluctuating barracuda population be watched most carefully and protected against depletion.

"Although our organizations have not yet determined 1957-'58 policy on this species, there seem to be two wise methods of control that could restore it to the former abundance:

"(1) Establish no sale and no commercial landing in California for limited number of years.

"(2) Have the Fish and Game Commission take over control and issue semi-annual commercial catch limits in accordance to size of barracuda population.

"The barracuda is not a preferred market fish and is therefore much more important to the people of the state as a game fish.

"Sardine.

"Two years ago, the Department of Fish and Game predicted a sardine catch of not more than 50,000 tons. Less than 40,000 were taken. For this year the prediction is for less than 20,000, and for next year -- none.

"The occurrence of numerous young sardines in the bait catch this

year is the result of a small close-to-shore spawn. It was noted by U. S. Wildlife that in the usual spawning grounds (up to 150 miles offshore) there were scarcely any sardine eggs or larvae.

"All this suggests that the few remaining young produced this year will be subjected to heavy inshore predation. Whether any will survive at all is a question.

"We have no policy as yet on sardines."

CHAIRMAN BELOTTI: Thank you, Mr. Rossez.

MR. THOMAS: Sportsmen want to ban all sea bass and have them put on as sports fish only. I would like to have the Chairman request the Director of the Department of Fish and Game to send each member of our committee the latest report on species that we are talking about -- sea bass, barracuda, yellowtail, mackerel, anchovies, lobsters and Pacific mackerel. I think it is very important that we should get a report from the Director with the latest findings of the Department, the latest survey, the latest investigations they have made on these species. That will put us in a position whereby we will know just what position the fisheries are in at the present time.

CHAIRMAN BELOTTI: Well, that is a reasonable request. We'll follow through on that. We will ask the Department to submit whatever information they may have.

MR. CARMICHAEL: The gentleman who just spoke brought up a subject that is quite important, you might say, to San Diego County, and that is in reference to the anchovy. Was that supposed to have been brought up at a particular time?

CHAIRMAN BELOTTI: Yes, it was in order.

MR. CARMICHAEL: I certainly would like to speak on the subject inasmuch as I have been authorized by the San Diego County Wildlife Federation.

One of San Diego's major industries is sports fishing. We have



hundreds and hundreds of boats -- large boats, yachts, outboards and everything -- that are going out from San Diego specifically for sports fishing. We are getting 10,000 permits a month from the Mexican Government to go into Mexican and Coronado Island waters alone. That is what we pay out of San Diego -- ten thousand dollars, better than that, eleven thousand dollars -- just to fish in Mexican waters. That is what we pay the Mexican Government each month, and have been paying all this year -- ten thousand, eleven thousand dollars a month for the year. Now, that's a big industry here in San Diego, as Mr. Jessop said awhile ago. We've got 160,000 yellowtail. I just got the report today. In our day's catch we got 1801 yellowtail, we got 16-some bonita. That's a terrific catch. In any other part of the United States, you'd be advertising all over the whole country what a wonderful place to fish we have, but here in San Diego, apparently, we don't have the publicity that we get in other areas.

At certain times this year we have absolutely been without sufficient bait to fish. Now, we draw anglers from all over the country and imagine what money is spent by those anglers coming in here, for hotels, gas, food, whatever it might be. That doesn't count the amount of boats they are keeping in shape all the time. So we have to take into consideration that there are millions and millions of dollars being brought into San Diego County alone, through sports fishing. Now, unless we have a bait fish, we're not going to have any sport fishing in San Diego County. The fish may be here; they may be fishing on soureye or other fish, but we can't net soureyes which have to pick up the available bait, which would be either anchovies or sardines.

Years ago, the San Diego Fish and Game Association tried to introduce a bill into the Senate -- in fact, they did introduce a bill -- asking for a moratorium on the sardine. The Senate defeated the bill and therefore, they continued taking sardines until

the sardines were gone. For the last several years we have had absolutely no sardines until this year a few came up out of Mexico, little stuff, three to four inches long. That is the bait that we have had in the sardines.

We had to go clear up north for our bait this summer--not all the time, but at various times we had to go clear up in the northern part of the state to get the bait to fish from San Diego waters.

Apparently, something will have to be done to take care of the bait situation. The only thing I can see, the only possible thing I can see to do would be what I have requested. I personally requested that we draw a line at the end of San Diego County. I don't care how the other part of the state feels about this, but I feel that we should draw a line right across the upper end of San Diego County and reserve all anchovies in this area for bait fishing.

The fact that we have millions and millions of dollars invested in our sport fishing industry, in our small boats and our yachts, and so forth, certainly gives us precedence over the little bit of money that could be gained by netting those up for other purposes. Therefore, at this time I would like to say that I ask the committee to recommend no increase whatsoever and, if possible, a moratorium on all anchovies south of the San Diego County line.

MR. THOMAS: Is the anchovy depleting?

MR. CARMICHAEL: They are depleting to the extent that we have had to go clear to Hueneme to get bait for our fishermen.

MR. THOMAS: Well, if that is true, let's close it for every one for two years and see how it comes back.

MR. CARMICHAEL: Why didn't we do that on sardines?

MR. THOMAS: I'll make the recommendation right now to this committee.

MR. CARMICHAEL: We asked that that be done on sardines, but the



Senate turned us down. We asked for it when we had anchovies for bait. Now if we have a moratorium on the anchovies, nobody can do it. We're done.

MR. THOMAS: If any species of fish in California gets to a point where it is ready to be depleted and it is in as bad a condition as you say, I think it should be completely closed.

MR. CARMICHAEL: What I'm saying is that the sport fishing industry in San Diego is far more valuable to San Diego County than any commercial take of anchovies might possibly be.

MR. THOMAS: Keeping the people and the canneries working in San Pedro is more important to us.

MR. CARMICHAEL: All right, let them can their anchovies in San Pedro. We'll take ours down here.

CHAIRMAN BELOTTI: Just a minute, please. Let's have order here, now. I want to ask the witness a question.

Chumming is legal here, is it not?

MR. CARMICHAEL: Yes, sir.

CHAIRMAN BELOTTI: I just went out once here, and I know it was a novel experience, and I enjoyed it very much. I was just thinking in my own mind, by way of conservation, that to save some of that bait, perhaps the prohibiting of chumming might be helpful.

MR. CARMICHAEL: I would like to make a statement. About one anchovy to every 500 is used for bait. Those anchovies are returned to the water. They go off and are caught back and used, time after time. When you catch them for bait that is not the end of them then, because one out of 500 is used, the rest are returned.

CHAIRMAN BELOTTI: All right, thank you very much.

Now, let's not prolong this unnecessarily. If you have a statement to make, just get up and make it.

TODD GILL, SAN DIEGO

I represent a commercial fish company here in San Diego, and also a couple of restaurants that strictly use fish commercially, and I know the impact that would result for our eating public from this ban, and these bills that are before the Assembly to curtail the use of commercial fish.

I would like to urge one thing upon you gentlemen if I can. I think you are well aware that when we take away a livelihood from some people and give it for the pleasure of others, I think we are destroying a way of life. And as for this anchovy business, well, if Mr. Carmichael will name me one industry in San Diego or one place that is canning anchovies or sardines in San Diego or that is using anchovies or sardines for commercial purposes, I'd like to hear who they are.

There are three or four boats today that are fishing sardines and anchovies strictly for these sport interests and they are the only ones that we've got working for us.

He mentioned the fact that we have this tremendous increase in the sport fishing industry in San Diego. Well and good. I'm for it a hundred per cent, and I also say to you gentlemen -- keep their interests in mind, but also keep our interests in mind, and let us both live to this aim, that these people are demanding more bait and more anchovies. We have more sports fishermen and, naturally, we need more anchovies. That's where it's coming from, not from this line that he wants to draw. If you draw this line, the only people who would be using anchovies or sardines are the sports interests and a few tuna boats, and that's a very few.

CHAIRMAN BELOTTI: Thank you very much. Now this gentleman here.

FRED BUONO, PRESIDENT, SAN DIEGO FISHERMEN'S ASSOCIATION

Mr. Chairman and honorable members of the committee, I have been with the fishing industry now for 31 years, and that has been at the



same place all the time. I have been in Sacramento at the passage of many of the bills many times. We have cooperated with the fishermen to the fullest extent.

We close up the round haul nets and the purse seining for barracudas, sea bass and yellowtail. We limit the bait boat to 500 pounds each.

Speaking on depletion, in the first place, gentlemen, seven or eight or ten years ago I had about 200 boats doing commercial fishing, bringing in fresh fish every day. That amount of fishermen -- they are not fishing for fresh fish any more. They are practically all tuna fishermen, and so our fresh fish fleet is very small. That shows the reduction in the amount of fish that used to be produced and what is produced today.

I used to unload daily the sum of 50 or 60 tons of barracuda, yellowtail and white sea bass. Today we can't produce it because what have we got to produce it? Furthermore, we have a run of sea bass this year up to as far as Monterey; there are sea bass all over the coast. Jig boats have been coming in with a thousand pounds, 800 pounds of barracuda daily. Where is the reduction or the depletion? The depletion is the depletion of the boats that they are not operating.

Naturally, in the records of the Fish and Game, you can't find any amount of fish because we only have about a half dozen jig boats and maybe three or four bait boats, where we used to have a fleet of four or five hundred boats fishing, especially for barracuda, yellowtail and sea bass.

So, gentlemen, whatever there is left to produce so we can even have a piece of fresh fish for our own sake, we are entitled to that -- not only the fisherman, from the living standpoint, but also the people. They are entitled to eat a piece of fresh fish once in a while, and as far as the sport is concerned, they're getting all the fish they want. We don't want to have any hard feelings. We want to

get along and try to live and let live. Thank you.

MR. ALLEN: In your area down here, are there any packing plants that can anchovies?

MR. BUONO: No, sir.

MR. ALLEN: In other words, as previously testified, the only sardines or anchovies that are used are from the boats that are pulling the anchovies for the use of sports fishermen?

MR. BUONO: That's correct, absolutely correct.

CHAIRMAN BELOTTI: Thank you, Mr. Buono.

MR. LIMBAUGH: I want to go back to a couple of others. I'll be very, very brief. This pertains more or less indirectly to the bills on lobster and abalone.

This is on the lobster. Undersize lobster and small game fishes are destroyed and wasted if not allowed to escape from traps. Large fishes and legal sized lobsters are also destroyed if the traps are lost and the traps remain closed.

Fish trapped in lobster traps have been killed by the activity of lobsters in the same traps. This is dependent upon the number of lobsters and the length of time the fish remain trapped. Young fish, especially kelp bass, are particularly susceptible to the activities of the lobsters, but even adult fish as hardy as the moray eel are frequently killed.

Trapped lobsters are susceptible to the activities of the various predator fishes and octopuses. Well constructed lobster traps become death chambers for both lobsters and fish until they disintegrate, which is often six months later. And your trap loss during a season may amount to a hundred per cent.

MR. THOMAS: In other words, your conclusion is that traps are bad for shellfish.

MR. LIMBAUGH: The lost traps are bad for fish and lobsters.



MR. THOMAS: Can you say that applies to crabs?

MR. LIMBAUGH: Probably you could say that applied to crabs, although the crab industry -- (interposed)

MR. THOMAS: In other words, you're talking against the use of the traps in taking lobsters?

MR. LIMBAUGH: No, I'm not talking against the use of it. Let me complete my statement. Holes in the traps near the bottom, large enough to allow young fish and small lobsters to escape, will probably increase the number of legal lobsters and certain game fishes.

You could use replaceable, corrosive metal wires which would disintegrate within a week or two. In a trap of this construction, it would soon open and allow both lobster and fish to escape.

MR. THOMAS: Is the use of traps detrimental in taking lobsters?

MR. LIMBAUGH: I think it is, yes.

MR. THOMAS: Since the use of a trap to take the lobsters is no different than taking the crabs, would you say that would apply to crab fisheries?

MR. LIMBAUGH: It might very well. I hadn't thought about it that way. We don't do much crab fishing in this section of the state.

MR. THOMAS: I was just trying to compare it.

MR. LIMBAUGH: I feel that the traps are about the only way that you can fish lobsters, other than maybe scuba (self-contained underwater breathing apparatus), which is a very effective method, a very efficient method, but it is being discriminated against because it is an effective method. If the traps disintegrate, they would allow the lobsters to escape later on.

This part applies to abalone, and only to abalone, in San Diego County. Each area is different. The following observations pertain to San Diego County.

Black abalone are extremely scarce. The numbers of green abalone

have decreased during the past five years, probably due to the combined activities of skin divers and commercial divers. Legislation limiting their take may be necessary to halt the decrease. Pink abalone seem to be decreasing in numbers, at least in the shallow portion of the range. However, the decrease is not as marked as it is in the green abalone.

Mature red abalone are abundant at depths ranging from 50 to 90 feet. Most of them are old, and the dark meat has little market value. Most are crowded and will never reach the minimum commercial size. A temporary relaxation of the minimum size in this area might make it profitable to harvest them. Once harvested, the areas should be available for young, fast-growing abalone which command a good price and which would probably attain the required minimum size. Neither the red nor the northern green abalone attains a minimum size required.

MR. THOMAS: Are these findings of the Scripps Institution of Oceanography?

MR. LIMBAUGH: These are indirect findings while I was working on other projects.

MR. THOMAS: In other words, you are not presenting this as part of the Scripps findings?

MR. LIMBAUGH: Well, yes, I would say I was.

MR. THOMAS: Could you send us copies?

MR. LIMBAUGH: You may have this copy here.

MR. THOMAS: May I ask the Chairman whether he would write to the Scripps Institution and get a late report on the abalone and lobsters?

MR. LIMBAUGH: They are not doing research.

MR. THOMAS: They are not doing research?

MR. LIMBAUGH: These are indirect observations made while doing other research which pertains to the industry.

MR. THOMAS: I'm not making myself clear. Has the Scripps Institution done any research on lobsters?



MR. LIMBAUGH: Well, not pertaining to this problem.

MR. THOMAS: Or the abalone? Have you done any research on the two species?

MR. LIMBAUGH: Not that would pertain to this problem, other than the observations we make incidental to our other work. Understand, since 1949 we have been constantly working in the areas where abalone live, and we also have quite a number of divers working in this area.

MR. THOMAS: In other words, if I would write to Scripps Institution for a report on conditions of the spiny lobster fishery and the abalone of California, do you think they could give me any information?

MR. LIMBAUGH: No.

MR. THOMAS: They couldn't?

MR. LIMBAUGH: They could give you some information on lobsters and abalone, but there is a publication by the University of California.

MR. THOMAS: I know. They gave a master's degree to the student who wrote the article on spiny lobsters. We're getting a lot of master's degrees.

MR. ALLEN: Let me understand Mr. Limbaugh's approach to this situation, since he was on the agenda.

Mr. Limbaugh, what you are making here is a personal observation: This is just merely in conjunction or connection with your other work.

MR. LIMBAUGH: That's right.

MR. ALLEN: You are reporting this merely as observations that you have made on your own.

MR. LIMBAUGH: Yes.

MR. ALLEN: Now, then, let's understand the situation. You say that the black and green abalone are making their disappearance.

MR. LIMBAUGH: No, I didn't say that. I said the black abalone is scarce. I said the green abalone has decreased. The black has been scarce since I've been here.

MR. ALLEN: You have not yet had the time to determine what caused that. In other words, you could just pick a time and tell this committee that there is a scarcity.

MR. LIMBAUGH: Well, I wouldn't go so far as to say you couldn't get some idea. I have made counts of the number of abalone taken by skin divers from various coves on my week ends just for my own information. The numbers that come out of these coves are tremendous, and it doesn't seem possible that these coves can keep supporting these numbers, and there has been a decrease.

We have timed the divers and skin divers to see how long (the same skin divers who increased in their efficiency over a period of years, in the same areas) it took them to get a limit of the abalone. Four years ago this was 18 minutes; now it is around 40 minutes.

MR. ALLEN: Calling your attention to the red abalone, did you say that they are older abalone and in certain places they are so old that they have this dark meat that makes them unacceptable? If there were some indication of going to a lower size that would make it profitable to harvest them, would an intelligent harvest of those possibly give the younger, more desirable abalone, a chance to grow in greater quantities?

MR. LIMBAUGH: These old abalone do not reach the maximum size. They are crowded, and although their weight per shell is much greater, they won't reach the size.

MR. ALLEN: You made a suggestion, purely from your own observation, that an escape hatch be built into a lobster trap that would allow the small lobster -- the lobster not of legal size -- to escape, to grow up. Some contention should be made on the construction, otherwise, when a lobster trap is lost, everything in that trap is lost.

MR. LIMBAUGH: And it continues to trap.

MR. ALLEN: So, therefore, it would be detrimental to the



commercial fisherman, the sportsman, the skin diver and anyone else, as long as this is allowed to continue to trap and continue to just kill without any further use. So, therefore, your advice -- or what I would take, if I were in the business -- is that if I must go out and build another trap, it should prevent that sort of thing, to keep a steady stock that I can take commercially.

MR. LIMBAUGH: Incidentally, regarding the question of whether the abalone were part of an investigation, I was tagging kelp bass a number of years ago, and we used what we call bass traps, which were very efficient in catching lobster. It was from my observations there that I made these statements on the lobster.

CHAIRMAN BELOTTI: Thank you very much.

The ladies from the Grange, here, have been waiting patiently all day long. They have very important testimony concerning the tuna imports, prices and other matters, and I'd like to call on them at this time.

MRS. MARY BARRETT, MASTER, SAN DIEGO HARBOR GRANGE

I have a report here -- as far as reading it is concerned, I can just file it.

I will say this much, that the San Diego Harbor Grange is conservation-minded, and we believe in true conservation as determined through biological study by biologists. The biologist has the ability to determine what is the fully mature fish. He can place the size limit on it, and if all of us refrain from taking immature fish, we can have fishing of any species. One of the reasons why we have all the yellowtail, the barracudas, the sea bass, et cetera, today, has been the size limits that have been enacted, despite the fact that our population is increasing.

(The following report was filed)

Oct. 2nd, 1957

Mr. Chairman, Members of the Committee, my name is Mary Barrett. I'm Master of the San Diego Harbor Grange, and will speak in this capacity even though I am a commercial fisherman and Assistant Secretary to the Albacore Fishermen's Cooperative, known as the Five Star Fish and Cold Storage. The Members of the San Diego Harbor Grange join me in thanking you and your committee for holding this meeting in San Diego and especially for adding to the agenda the subject: Tuna.

We appreciate the opportunity of pointing out at this time a few pertinent facts to the committee.

First: The greater majority or as nearly as could determine, 98% of the commercial fishermen are sportsmen, for they too enjoy the pleasures of hunting and fresh-water, stream or lake fishing.

Secondly: The fishing industry, which is composed mainly of producers or farmers of the sea, is one of the principal sources of new wealth in the State of California, yielding products valued at more than a quarter of a billion dollars annually. California has the most valuable commercial fisheries of any state in the Union, her vessels customarily fishing in all seas from Peru to Canada and it is reasonable to anticipate that the yield of California fisheries could be doubled in the foreseeable future as new fishery resources are opened up and brought under harvest.

The commercial fisherman, or farmer of the sea, realizes the IMPORTANCE of TRUE CONSERVATION; however, redundant bag-limits or removal from the commercial list are not in this category. True conservation is protection of the species by SIZE LIMITS. This method of protection is determined by the medium of biological study. The biologist has the ability to ascertain the size of the fully matured fish, thus preventing the extinction of the species by the taking of immature fish. The proof of this method of protection is very evident today, with the specie "yellowtail". Since the use of size limits with this specie, as well as others, has increased the population to such proportions there is no longer even a hint of a shortage. Please note attached news items.

However, if the Department of Fish and Game and/or the biologists feels at this time added protection should be placed on any certain specie we would suggest the present laws be amended to read, "It is UNLAWFUL to have in ANYONE'S possession IMMATURE OR UNDERSIZE fish", thus adding further assurance for the protection of all species.

Third: In regards to the specific items on today's agenda:

AB 2508: according to the information presented to us this bill pertains to anchovies only. "Prohibits sale, purchase or use for canning of anchovies taken for bait or for human consumption in fresh state." If this be the case, no comment.

However, if AB 2508 as listed on the agenda pertains to anchovies and yellowtail, we can only assume this bill to be a companion bill to AB 1687, which was defeated at the last session of the Legislature and therefore should be a dead issue. However, for the records, these two species, anchovies and yellowtail, should never be incorporated into one bill as they have nothing in common. Also the fact still



remains anchovies are a local fishery and yellowtail 98% a Mexico fishery. We again reiterate the existing size limit law has proven itself to be more than adequate protection, and I might add, the San Diego Yellowtail Derby this year was a tremendous success, with fantastic totals of fish taken not only of yellowtail, which according to the newspapers, amounted to on Wednesday, September 25, 1957, 153,649 fish, with predictions the catch would hit at least 175,000 before the anglers shift to bottom fishing, but they include barracuda, white sea bass, albacore and many other species.

AB 3258: White Sea Bass: There being no biological reason for this bill plus the fact the Fish and Game records when compiled for this year will show no shortage of this specie, instead the records will show a definite increase, therefore no necessity for this bill.

AB 3380, Pacific Mackerel: Again, there being no biological reason for this bill, therefore no need for the bill.

In order to expedite this testimony; at the last business meeting of the San Diego Harbor Grange #775, Thursday, September 26, 1957, these bills, AB 2508, AB 3380, AB 3342, AB 3704, AB 3258, AB 3404 and 3405, AB 4013 were discussed item by item and due to the lack of any sound biological reason, plus the fact this year's records will show a decided increase in the species itemized, the membership voted unanimously to oppose these bills and this type of legislation. They also expressed their sincere desire that by the time the next legislative session begins a constructive program will be worked out whereby, instead of spending time, money and energy defeating unnecessary, superfluous legislation, the concentration may be applied to a worthwhile cause, such as water pollution, extensive research by the Fish and Game Biological Department, etc., wherein all the peoples of the State of California may benefit.

Respectfully submitted,

/s/ Mary R. Barrett, Master

MRS. FLORENCE McDOUGALL, ADVISORY COMMITTEE ON FISHING, CALIFORNIA  
STATE GRANGE, NEWPORT BEACH

Mr. Chairman, we are prepared to transfer our testimony to San Pedro in the interests of conservation of time this evening, since the previous testimony here has, in my mind, gotten a little bit off the agenda -- Mr. Rossez presented testimony regarding bag limits on anchovies, remarks were made on the conservation of the yellowtail -- and I believe there is a general confusion in the minds of some of the participants here as to Bill No. 2508, listed on your agenda as "Anchovies and Yellowtail".

CHAIRMAN BELOTTI: I think that should be 1687.

MRS. McDOUGALL: One-six-eight-seven was defeated on the

Assembly floor the 30th day of May, in its entirety. That removed all limits on yellowtail and it also took care of the anchovies.

There was an effort made to have a 40,000-ton quota on anchovies placed on Senate Bill 725, but the motion lost on the floor for lack of a second. Of course, we will stand on our evidence as placed before the committee last March.

M. D. STEWART, MANAGER, FIVE STAR FISH AND COLD STORAGE COMPANY

Mr. Chairman, there was some confusion here today. I wish to represent our Cooperative regarding these bills. On the agenda it was noted that I was to represent our Cooperative as to tuna alone, and I would like to take a few minutes of the committee's time.

CHAIRMAN BELOTTI: Very well.

MR. STEWART: My statement is rather short, but I would like to make a few comments as I go along.

Mr. Chairman, my name is M. D. Stewart of the Five Star Fish and Cold Storage Fishermen's Cooperative, representing approximately 200 fishing vessels in this area. I wish to thank this committee for the privilege of giving this testimony in behalf of our organization.

We wish to make clear to this committee that any legislation which is constructive to all is also our ambition. However, we believe that certain legislation pending at this time is not constructive.

Now, I'm sorry, gentlemen, but we took our bulletin, which was AB 2508, and was misleading to us -- we thought that was a companion bill, anchovies and yellowtail together. AB 3380, AB 3258 and AB 4013 should be relegated to scientific and biological studies to determine the necessity for such legislation. We are not opposed to constructive legislation and think that AB 2508, and yellowtail, should be separated. We do not think it necessary to take your time in a lengthy discussion as to yellowtail.

Reports on local catches by sportsmen are enough to indicate



that present laws are sufficient. We will vigorously oppose any further legislation as to this species.

Gentlemen, I would like to make a short statement on this. Before I became manager of Five Star Fish and Cold Storage, I fished personally for 17 years, before there was a size limit on yellowtail. I have seen the time when yellowtail were, you might say, at an all-time low. For three years after the size limit was placed on yellowtail, the commercial boats took very little yellowtail. From there on out, the yellowtail population increased tremendously and, as of last night's paper, here in San Diego they had taken 64,000 yellowtail. According to Mr. Tom Carmichael today, I think you can add 1800 and some yellowtail to that for today's catch.

Now, we do not believe that there should be anything in legislation. We feel as though it is time and money lost, taxpayers' money spent unnecessarily, to even think of legislation as far as yellowtail are concerned. Thank you.

Relative to AB 3258, it is our understanding that sea bass is now under study. It seems inconsistent to us to be considering legislation on this species until a full report has been made. At that time fair legislation for all can be recommended. In Santa Barbara this year the catch on sea bass was so heavy that the market price went down to as low as 6 cents a pound.

This last week I came back myself from Monterey, Morro Bay and Avalon. In Avalon, the small boats normally fishing for salmon had been trolling for sea bass. The catch of sea bass in northern California is tremendous, and we believe that until sufficient proof is given biologically, and with a proper study of such fish, they should never be removed from the commercial list.

AB 4013, prohibiting the use of gill nets south of Point Arguello -- this would be discriminatory to all commercial fishermen.

It not only would prohibit the use of sea bass nets, but also barracuda, halibut and shark. At this time there is no material proof of the necessity for such legislation and we vigorously oppose any discriminatory legislation.

It might be well to consider spending a part of the increased revenue derived from the increases in fishing licenses on specific studies of oceanic fish, and upon recommendation therefrom, sensible legislation could be forthcoming.

Now, gentlemen, every two years we have the same thing to go through. I don't know what happens but there is a lot of legislation that is not sensible. We believe if we took the money that is being spent at the present time for studies on legislation that is certainly not called for and put that money in a fund to study this subject, we could come up with sensible legislation. I thank you.

MR. ALLEN: Mr. Stewart, you mentioned here the price of white sea bass. I understand that in some instances that extended to barracuda, where it was 6 and 7 cents. It would hardly pay you people to go out and fish for it.

MR. STEWART: That's correct. The fact is, as you remember, there were quite a few of the sea bass boats using nylon nets at great expense to the boat owners, and there was one gentleman here this afternoon (he spent the afternoon here, but I guess he didn't think you'd get to him, and left) who tied up his boat completely. There have been quite a few sea bass boats tied up completely because of the lack of price.

Also, regarding barracuda -- since you mentioned it -- for the first time in 25 years they have been jigging barracuda in Avalon Bay and off of Pismo Beach, and they have been doing very, very well.

MR. ALLEN: Isn't that true, Mr. Stewart, that when we start setting a fixed limitation on any type or species of fish, you may



take 60 tons one year of a type of fish and may go down to 6 tons the next year, because of the demand and the price that operate your boats. In other words, price is a conservation method that determines, too, isn't it?

MR. STEWART: That's correct.

MR. THOMAS: In other words, the landing of a particular species of fish actually is not a determining factor as to whether that particular fish is being depleted.

MR. STEWART: That's correct, sir. In this instance, when the price dropped so low on sea bass that these fishermen could not exist at that price -- in other words, use their gear; their gear was worth more than the fish they were catching -- they tied up their boats.

The fish are still there, right now, today, off of Avalon and Pismo. There is a great abundance of sea bass showing right now, and the boats are not fishing them up there. The net boats are not fishing them.

MR. THOMAS: In other words, the Department has a report saying you landed so many thousands of pounds in 1955, so many thousands of pounds in 1956, and they show a decline of the poundage the following year -- that, of itself, isn't a very good yardstick to use in determining whether that species is being depleted, is it?

MR. STEWART: It is not, sir.

MR. SCHRADE: Did you mention the amount of yellowtail taken as 640,000 or 164,000?

MR. STEWART: It was 164,000 as of last night, and today Mr. Carmichael said that the last report was 1800, I believe, 1800 and some odd yellowtail, as of today. By the way, I broke that down into pounds last night, and it would amount to better than 1,800 tons caught by the sportsmen this year.

I also wish to point out that these are landings that are

reported by the sportsmen and sports boats from Point Loma. Somebody in this audience might be able to give you a better idea than I can, but hundreds and hundreds of sports boats leave this harbor every Saturday and Sunday with two or three scoops of bait and go yellowtail fishing. Those fish are not reported, I'll guarantee.

MR. THOMAS: What percentage of yellowtail is caught in American waters?

MR. STEWART: Until the last two years there were very small amounts. Now, even as of today, the largest figures that we are contending with are figures that come from Coronado Islands, which is actually Mexican waters.

MR. THOMAS: Would you say that 2 per cent is caught in American waters?

MR. STEWART: I would say 2 to 5 per cent. I'm guessing. But they have had the yellowtail this year as far north as Santa Barbara. Our contention is -- as far as the commercial people are concerned -- that when the 28-inch size limit was put into effect, at that time the Fish and Game Department assured us (and we have representatives here) that this fish has had a chance to spawn. That took care of all the necessary legislation as far as yellowtail was concerned.

MR. ALLEN: One more question: as I understand you, Mr. Stewart, and the people of the Grange, your principal objection to that dual bill, extending the time, was because the anchovy and yellowtail were tied together. As far as the anchovy was concerned, in your estimation, had these sportsmen compromised that measure and left the yellowtail out, there would have been no objection to the extension on the anchovy.

MR. STEWART: I do not believe there would have been objection to the anchovy bill. There may have been from a few. I believe that anchovies should be handled the same as yellowtail, or the same as sea



bass. I think a size limit on anchovies would be your answer. I believe as long as the anchovy has time to mature and spawn, it will take care of its own situation. I believe they could be used commercially without harming the anchovy crop whatsoever. That is the reason why I mentioned a moment ago that we think that they should be making proper studies regarding these species.

You want to realize that I represent 200 fishing vessels here and each one of them has a particularly vital interest of their own. One may fish sea bass, another anchovies, another fish, although in San Diego County we are not fishing anchovies commercially.

I still believe that the people who are fishing anchovies commercially have the right to live, and I think if those fish were allowed to become mature and to spawn, and a size limit were put on them by the Fish and Game, everybody would be happy.

CHAIRMAN BELOTTI: Thank you very much, Mr. Stewart.

MR. CROKER: May I make one brief statement?

CHAIRMAN BELOTTI: Yes, you may.

MR. CROKER: Mr. Stewart has highlighted one point that has been in my mind a long time, Mr. Chairman, that too often in the management of our marine resources we take the negative view -- cut out kelp cutting, cut out sea bass fishing, cut out gill nets, and "let's have more and more regulations". I would like to propose sincerely that we look at things from a positive viewpoint for a change. I might even suggest that we have a moratorium on restrictions.

Our staff, desperately undermanned, is trying its best to answer these questions as to which restriction is good or which restriction is bad. Those men are sincerely trying to improve fishing opportunities for everybody. They don't have much opportunity, themselves, to develop a positive management approach.

Now, maybe Colonel Todd has a real idea. We are working

closely with him. We have other projects -- for instance, we are working with the Oil and Gas Association on the construction of their oil lines.

There are many, many ways we might be able to increase fish production so there is more fish for everybody, but as long as our staff -- and the Legislature and everyone else -- have to spend all their time either supporting or fighting restrictions, I'm afraid we're not going to get too far too fast.

CHAIRMAN BELOTTI: Thank you very much.

MR. THOMAS: I want to put this into the record. I have a high regard for the personnel of the Department of Fish and Game, and I have a lot of friends in that department who are doing good work. The statements I have made today were not in any sense of the word meant as reprimanding any Department personnel. In fact, I'm on the State Civil Service Personnel Committee that supported all the demands insofar as working conditions and all those fringe benefits are concerned.

The only thing that I feel is very important to this committee is that we have before us the latest published reports on the species that we talk about; then we can know just what the Department has done on each particular species. For example, on lobsters, we want to know how much work has been done on that, what the latest report is, and from these reports the committee can draw its own conclusions.

CHAIRMAN BELOTTI: Of course, you will get that information, Mr. Thomas, also, from the work that Mr. Scheuermann has been assigned, based on the subject matter of your resolution which provides that a study be made, and we have obtained Mr. Scheuermann as one of our consultants. He is from the University of California and is supported by the Ford Foundation on a group that has been assigned to the various interim committees in the Legislature.



Now Mr. Scheuermann has been assigned to our committee and so, in turn, as Chairman, I have assigned to him the subject matter of Mr. Thomas' resolution which, in effect, proposed to correlate or catalog all of the information, all of the studies over a period of years that have been done on the various phases of the activities of the Department of Fish and Game. Now, it is quite an assignment, but I'm sure that he is going to do the job and do it well.

Then, when all that information is catalogued and correlated, of course, it will be our responsibility to find the technical people, those qualified to evaluate that information. Perhaps, Mr. Thomas, out of that will come the information that you are actually seeking from the Department.

MR. THOMAS: Well, I think that we should have this report now, since we're talking about the subject matter.

CHAIRMAN BELOTTI: We'll ask him to give us whatever information they have at their disposal.

MR. CROKER: Just so the point isn't missed, let's all take the positive approach and try to think of management as something besides restricting somebody from either making a livelihood or having some recreation. Let's get more fish for everyone.

MR. THOMAS: I certainly appreciate that statement. I think it is one of the finest statements you have made since I have known you.

MR. ALLEN: I had a telephone call before I came down here, and I'm sorry I don't have the gentleman's name. He was a fisherman. He said that probably one of the most important things, as far as he was concerned -- and the rest of them was concerned -- was the desperate plight of the tuna fishermen down here, and that you were going to give us quite a report on it or some of your people were. Are you going to defer that until we get to San Pedro, or are we going to get

it today?

MRS. BARRETT: The people who are here to testify on that won't be able to get to San Pedro.

CHAIRMAN BELOTTI: Then I think we should consider that subject.

MR. ALLEN: I think we should, too, because as I understand it that is a very grave situation that is facing you people. Therefore, I would move that as our next order of business.

CHAIRMAN BELOTTI: That is in order.

HOWARD E. MILLER, SAN PEDRO FISHERIES INSTITUTE

I'm here for the San Pedro Fisheries Institute. Inasmuch as you're going to have a hearing at San Pedro, I'd like the record to show that I am here to oppose and to give testimony on some of the bills affecting the fresh fish market, but I would like to defer my testimony until Friday. I would like the record to show that I was here all day and I am prepared to defer.

CHAIRMAN BELOTTI: That's fine. Thank you very much.

All right, Mrs. Barrett.

MRS. BARRETT: Mr. Chairman and members of the committee, we of the San Diego Harbor Grange want to extend our real appreciation for adding to your agenda and taking time to listen to the tuna story.

In '51 we went out for a tariff bill. Then we said that if we didn't get a tariff bill, we would be faced with bankruptcy. In '55 we went out for a quota bill, and said the same thing. Today we have no predictions. The time has arrived. I'm not even too sure that the tuna fleet can exist and weather this storm of getting protection with a quota, which is going to be lengthy.

If Congress doesn't convene again until January 1st, by the time you have hearings and the time the bill is adopted, and it is adjusted, I don't know whether the tuna fleet can survive this period; it's going to be a real nip-and-tuck affair.



We are sitting on the wobbliest fence. It is going to take just a little breath of air and we can tumble off.

We have never tried in any of our attempts to protect ourselves to take the imports off the market in their entirety. We have always tried to share our market. We -- especially the Grange -- have learned to share with our neighbors and to help and protect. However, there is a point where one must stop. You can give your half a loaf of bread, but when they take all of it you've got to put up something. You can't go beyond that, and that's what we are faced with today.

We are willing to take a quota bill. Many people ask us, "You're not asking for a cutback?" We say, "No, we're willing to let them have what they have today, but at least give us the opportunity of expanding the market, and let us have the pleasure of enjoying it."

If we expand a market today the imports enjoy it. We have had a depletion in our fleet. We have no means of restoring our fleet. There have been 7 clippers built in the past six years, 2 by fishermen. There have been no seiners built, and there have only been about a half dozen small albacore boats built.

The government records show that we had around 3,000 boats in '51. On accurate count last year we had 889; on the clippers I believe it was something like 235. Today there are 152. I am not positive of the amount of the seiners, but I know they are down to about 53.

In the same six years, gentlemen, Japan has built 314 big-sized boats. Now she is reaping a real profit and we are slowly declining, and it is evidence of bankruptcy. I won't dwell too much on the statistics of it because Dr. Chapman is here, and he is our statistics expert, but we would like to impress on you and the committee that we need the help of the State of California because tuna fishing has an economic value to California as well as a food value.

We read of missiles, atomic bombs, and so forth, as the first line of defense. Well, the first line of defense, gentlemen, is food. Without food, what good is machinery? There is nobody to operate it. So we need food, and let's not forget that the tuna producers supply a main source of this food, a very good protein.

During the war we were the fair-haired child; we had all the priorities; it was an emergency. Now there is an emergency to keep us in existence and so we need help. We are not asking for a shoulder to cry on. We are not asking for sympathy. But we have to have help if we are going to stay in business and keep from being pushed right into oblivion. There are no if's, no and's. This is it. Thank you, gentlemen.

MR. ALLEN: Have you a practical suggestion as to what action this committee might take that you can recommend for the committee?

MRS. BARRETT: Well, I believe we would need a resolution that was passed before. You are all from different areas. I don't know exactly what the committee can do except verbally, and hopefully.

CHAIRMAN BELOTTI: To be very frank, the only assistance this committee can give you is to make a recommendation to the Legislature to pass a resolution. Possibly you don't want to wait until then, but this could be done at the budget session.

A joint resolution could be introduced by this committee, memorializing the Congress to take the necessary steps to correct the situation. Now, that is as I see it; perhaps other members of the committee may have some other suggestions.

MR. THOMAS: I want to compliment your Assemblymen from this area, Mr. Schrade and Mr. Luckel, for the good work that they have been doing on that subject in Sacramento. I know personally that they have been working very hard, and I want the record to show that I made that statement.



Secondly, this committee could possibly ask the Governor to ask the Interstate Cooperation Commission to follow through on the work they started to do two years ago. For some reason, the Commission didn't continue on.

CHAIRMAN BELOTTI: You're a member of that Commission, are you not?

MR. THOMAS: Yes, and we did some work on it, but I don't know what happened. Our chairman was appointed as Superior Court judge, and from that time on we haven't got too much on it.

MRS. BARRETT: Well, I believe, gentlemen, before the testimony is finished here today you will realize the importance of this situation to everybody in the State of California.

This is new wealth, new economic dollars. The tuna fisheries, the producers bring in new money. There is nothing that is here that is changed. This is new money. And I believe the fisheries were (I don't know if they still are -- Dr. Chapman will have to correct me) the fourth largest industry in the State of California. Economically, California cannot afford to lose that money. That is going to hurt everybody. It's going to hurt the merchants and the lawyers and the chiefs and everybody.

That is something that should be prominently in the mind of every citizen of California. And it has a nationwide effect, too, because of the tax dollars involved. It is most important to the state, economically.

LESTER BALLINGER, SECRETARY-TREASURER, CANNERY WORKERS AND  
FISHERMEN'S UNION OF SAN DIEGO

First of all, Mr. Chairman and members of the committee, I want to take this opportunity to thank you very much for sitting here these long hours to listen to our story. We really appreciate having somebody listen to us. We think we have a problem that deserves some

attention. I won't go into any statistics because later on you will be told that.

At one time in San Diego we had a labor group fishing on these tuna clippers of about three thousand members. Today we have about 1700 members fishing on those vessels, almost half of what we did have.

The reason why I am appearing here before you is not protocol. Mr. Chapman merely bowed to me because I've got to get out and attend a meeting we're having of the boys who are trying to work some solution to how we can actually go out fishing and make a dollar and make a livelihood and still keep the business going.

It has got to the point where we are not fighting anybody. We're not fighting the canners. We're not fighting the boat owners. We're not fighting the Japanese. We're not fighting anyone. We just want enough of the market that the people in this country built to make a living on. That's all we want.

Now, this is an industry of which the State of California should be proud. It was built without any help from anybody. Pioneers came in here in small boats and started a fishing industry. They built this fishing industry up to where it was a tremendous thing. It brought millions and millions of dollars into the State of California and created thousands upon thousands of jobs for people, with no cost to anybody. They asked for no subsidy. They asked for no help. They built this of their own initiative. And to have this thing taken away from us since 1951 -- as it has been -- it's a crying shame.

It's a state problem, and that's the reason I'm here, talking to you. I don't know what you people can do, but you are elected by the people of the State of California, and this industry is a thing that every citizen of the State of California should be fighting to protect -- an industry that belongs to it. It's a California industry.



I understand that there is a possibility that if an agreement can be reached on this water business, there might be an emergency session of the Legislature to take up that problem. And if that is so, then that is when we need the help.

We've got a bill coming up in Congress -- it will probably be brought up in April or May, or along in there sometime -- known as the Fisheries Protective Act. It was introduced by our good Congressman King, from the San Pedro area. There are also companion bills from other Congressmen. But this is the thing we've got to have; we've got to have this legislation, or there just isn't any tuna business. That's all there is to it -- we're out of business.

This bill correlates all these various loopholes where the Japanese have been sending fish in, in a disc, sending fish in, in cans, sending fish in, frozen. If you stop them from one angle, they bring it in by another. This bill correlates all those things, puts them in one category and says, "so many pounds -- leave so many pounds for the domestic fisheries." That's what we need. That's what we want. That's what we've got to have.

Gentlemen, I don't know what you people can do to help us but that is our story, and anything you can do to help us is going to be appreciated.

This is a California problem. It is the problem of every citizen of the State of California, and, in the long run, it is the problem of every citizen of the United States because as these imports come in from other countries in various industries it's going to mean more and more industries being hurt, and more and more industries going out of business because with American labor and the standards of living that we are accustomed to, we cannot compete with foreign labor and still survive.

CHAIRMAN BELOTTI: Let me assure you that this committee will

certainly support your very able representatives in the Assembly, and any legislation in either house, for that matter, but speaking specifically for the Assembly, we will support legislation to help you in that problem.

Again, let me reiterate that, regardless of whether or not there is a special session, it will still be possible to introduce the kind of legislation that we can, that is in the form of a resolution, not a bill, to memorialize the Congress to support the bill that you have mentioned. Now, if we can go beyond that, we will certainly do it.

Let me ask you further, what is the difference in the price between the imported tuna and the local tuna?

MR. BALLINGER: The difference in price varies. They have kept a price at a sufficient differential to keep their material moving. If we move our price down (and I'm not talking as far as the union is concerned -- I'm talking about the industry because as far as the fishermen are concerned, they have nothing to say in regard to the price) as the boat owners and the canneries get together on a price, it is leveled out at a sufficient margin under where their material keeps moving. We are just acting as a subsidiary; if they can't get it some place else, we fill in with what they can't get.

CHAIRMAN BELOTTI: You see you have an international situation that requires action by the Congress of the United States.

MR. BALLINGER: Oh, there's no question about that.

CHAIRMAN BELOTTI: We can certainly be helpful because we are affected here at home. Now, there may be something else that we can do.

MR. THOMAS: Mr. Chairman, may I just make this observation? Mr. Jacobson, who is the Director of the Department of Agriculture, is Chairman of the Interstate Cooperation Commission. I think this committee could recommend to the chairman to take this subject and to



handle their problems. I think the Commission was set up for things of that kind.

Every state has an Interstate Cooperation Commission, and they are all members of the Council of State Governments. The Council of State Governments maintains a staff in Washington and we have one of the finest representatives there in Mr. Frank Bane. He knows every Congressman and he has been in Washington for fifty years, I think. Dr. Chapman met him some time and he uses the resources of that office. But, believe me, there has been very little demand at the office of the Council of State Governments in Washington from anyone.

MR. BALLINGER: Well, I didn't even know you had one, to tell the truth.

What I wanted to urge upon you gentlemen is the importance of this problem, and to urge you to use every means at your command to help the fishing industry.

CHAIRMAN BELOTTI: Well, we certainly will.

MR. SCHRADE: I just wanted to assure the people here and the people of San Diego County that the San Diego delegation will do everything within its power to help solve the question. We will work with the Interstate Cooperation Commission, and will also enter such resolutions memorializing Congress to help us with this situation. And I know I'm speaking for Captain Luckel here who is very interested, who has spent the entire day here, not serving on the committee, but simply because he is interested in the people of San Diego County. I know that I am speaking as well for our other Assemblymen, George Crawford and Sheridan Hegland. We have worked together as a team from San Diego, and I'm sure that we will be able to solicit the aid of our colleagues.

MR. BALLINGER: Thank you very much.

MR. LUCKEL: Mr. Chairman, I'd like to state that through Mr.

Thomas, Mr. Jacobsen said he is coming down this month. I think he is going to be down about the middle of the month and he is going to look into the situation, but I think it would help very much if this committee would recommend it at an early date, to go into that. I think they can add a great deal to that.

CHAIRMAN BELOTTI: Fine, Captain. Thank you.

MR. BALLINGER: Thank you very much, gentlemen.

MRS. BARRETT: Mr. Stewart, Manager of the Five Star Fish and Cold Storage Company, will give a few words.

MR. STEWART: Gentlemen, I won't take up your time. I know what your opinion is already, but I do want to point out one thing. Dr. Chapman and his organization will give you the side of the large tuna boat, and he can do that adequately, but my problem is the small boats which are strictly albacore boats. The main import of Japan, as of today, is albacore which does affect our industry tremendously.

There is only one statement that I wish to make here. In the studies by the government in 1952, it was pointed out that there were better than 3,000 albacore boats that made delivery in California, and we have statistics in our office which we were able to accumulate ourselves, and they were absolutely correct. They were taken from each buying station on the coast, from San Diego to Washington, the State of Washington.

Last year 868 boats made deliveries, so I think that alone will show you the decrease in our fishing fleet. While there were a great many new boats being built in 1946, '47 and '48, there are practically no boats being built at the present time.

Now, as was pointed out here a few moments ago, during the war the fishing industry held up its end. The small boat also played a great part in that. We will be able to do that again, in case of necessity, but if it continues the way it is now today, if the large



boats go under, and the large tuna fleet goes under, the small tuna fleet or the albacore boats will go with it.

CHAIRMAN BELOTTI: Thank you, Mr. Stewart.

DR. W. M. CHAPMAN, DIRECTOR OF RESEARCH, AMERICAN TUNA BOAT ASSOCIATION

Mr. Chairman, it has been a long, weary day for you folks, and I'm not going to make any formal statement. I think you've got quite a good grasp of the situation now. I do have a letter here that I think contains all the statistical material you will need. It can just go into the record or used as you see fit.

We made a report before this committee on October 1, 1951. I was just reading it over this morning; it was six years ago yesterday. Some differences have occurred since then.

At that time we had 214 tuna clippers working out of here. Today we have 145. We lost 70 boats out of this fleet, approximately a third of our fleet. Our fleet is in considerably worse shape now than it was then; the 145 boats left are in much worse shape than the 214 that we had at that time.

Up to as recently as two years ago we were the most valuable fishery in the United States. We are no longer, and we are getting less valuable as time goes by. Mr. Ballinger said we supported a fair amount of economy in San Diego. We did, but we're shrinking very rapidly now.

The whole matter can be summed up very well in the price of yellowfin tuna. At a price of \$300 a ton, we can support about 225 to 250 vessels here, bringing in about \$45,000,000 worth of fish a year. At the present price, \$250, we can support about 75 vessels, which will bring in about \$12,500,000 a year. That is where we have come to, and it looks as if we're going to shrink down to that 75 vessels. It's a matter of straight out competition with the Japanese.

We realize that your committee can do very little except to recommend that the Legislature memorialize the Congress, and we are sure you will do that, as you have done before. We do appreciate tremendously what Captain Luckel, Mr. Thomas and Mr. Schrade have done already to alert the Interstate Cooperation Committee to work on this program. They did do a great deal of good for us in 1955, and I'm sure if Jacobson comes down here he will do more for us again, with Mr. Bane's assistance in Washington.

We do appreciate very much your taking the time to hear us. We have a very bad problem, and we appreciate any shred of help that you can give to us.

MR. THOMAS: Dr. Chapman, are you suggesting that this committee make a recommendation to the Interstate Cooperation Commission to take up this subject again?

DR. CHAPMAN: I think that would be most helpful. I'm quite sure that they would be receptive to such a recommendation. I'm sure it would bolster their hands in trying to help us, if they had the recommendation from this committee to that effect.

I have legislation that has been mentioned here. If you like, Mr. Chairman, this is a copy of Mr. King's bill. Also, the remarks that Mr. King made in the Congressional Record at that date of introduction, which explains what he is trying to do with the bill.

CHAIRMAN BELOTTI: Dr. Chapman, what is the price of tuna now?

DR. CHAPMAN: The price of tuna? We have an auction now. The price of tuna today was \$260 a ton for yellowfin and \$230 a ton for skipjack. In the last month we have simply gone along with the auction system. Our fish started piling up on us again, and by the end of July we had 9,000 tons of tuna here in boats that had been here for 30 days at that time. We were told by the cannery that we wouldn't get unloaded until the early part of October. We couldn't afford to



hold the fish. We just asked them to come and take it at any price. The price at which they took most of that fish was \$230 and \$190. We had to get the boats unloaded and going. We haven't had a tuna clipper come in this port, unload his fish and leave again for fishing since the first of July. The industry is grinding to a halt just as rapidly as it can proceed.

Had we waited until the middle of October to get unloaded for \$270 and \$230 prices, our boats wouldn't have got unloaded until Christmastime. It would take that length of time to unload that quantity of fish.

CHAIRMAN BELOTTI: I suppose that a strict control on the imports of tuna, which will implicate our relations with Japan, could be conducive to some rather delicate situations, don't you think?

DR. CHAPMAN: And for that reason we have taken an extremely moderate view on Mr. King's legislation. The amount of tuna coming in from Japan in the last three years has been increasing each year. It has amounted to about 200,000,000 pounds per year on a round weight basis, putting the can, the loins and everything into terms of round fish that come in.

As one feature of his bill, Mr. King proposes a quota of 200,000,000 pounds of tuna allowed in, or 35 per cent of the market, whichever is larger. The market has been increasing very rapidly in recent years.

When I testified before you in 1951 the sale of canned tuna in the country was about 10,000,000 cases; now it is about 15,000,000 cases. We have not participated in any of that increase at all. The Japanese have had all the benefit of the increase, and some of our original market. So we thought, with the international situation being what it is, we couldn't ask for any restriction on Japanese imports in this country, but we do think that it would be reasonable

to cut off their share of the market where it is now, and let us participate jointly in whatever increase the market will achieve from this time onward.

We are not seeking any cutback in the quantity of tuna coming from Japan, but we do want to be able to participate in any increase in the market that comes from here on.

MR. ALLEN: Dr. Chapman, I come from a consuming district. This question has been asked several times, and I'm glad that you are here so you may answer it for me.

Let us presume that Star-Kist Tuna -- mention the brand name of Van Camp or anybody else -- that when the tuna comes to this country it comes in bulk and comes in the raw state, just as though it were brought in by our own boats. Once that is packaged and processed, it loses its identity; you can't tell whether it came from here or from Japan. In other words, to all intents and purposes, when it gets in that can it's an American product.

DR. CHAPMAN: That's correct.

MR. ALLEN: That is where we see this great increase, due to your television and radio programs, and the broadcasts that the processors, the canners are using to pursue this, the upward trend in their sales, but the sale value does not reflect on our American workmen or our American boat operators.

DR. CHAPMAN: That's correct.

MR. ALLEN: I wanted to get that straight so there could be no argument with it.

DR. CHAPMAN: We were told in 1955 that the canners had to have a reduction in the price of raw fish here so they would have an extra margin for the necessary advertising to build a market. We dropped the price \$40 a ton, which amounts to about a dollar a case.

I am convinced that over half of that did go into advertising,



and there was a very substantial increase in the tuna market in 1956. More cases of tuna were sold in the United States than during any other previous year. I think that the advertising did a tremendous amount of help, but we didn't get the crop. That was all Japanese fish.

CHAIRMAN BELOTTI: Thank you very much, Dr. Chapman.

Now, is there anyone else who has anything?

HARRISON W. MASON, PUBLISHER, UPTOWN EXAMINER, SAN DIEGO

Gentlemen of the legislative committee, as the lady told you this is the fourth greatest industry in this state. The canners in this area can a retail value of a third of a billion dollars, over \$300,000,000.

Dr. Chapman, a research director of considerable note, has been working on all of these matters.

The Fish and Wildlife Act of 1956 was passed by Congress after 30 years of effort to lift the fishing industry.

Now, here is the second greatest state of our nation. In March we passed from third in population to the second state in population. Now, I feel that on the state level, while this tuna quota bill is being argued out in Congress, you gentlemen could think of some way. It is a delicate international situation. Is there any way that you can tax them at the dock? Is there any way to give your port authorities a way to legally tax that fish that competes against San Diego's -- or the State of California's -- fourth greatest industry? Can you get it on a personal tax so that those Japanese boats cannot come in?

I have a son who wears four battle stars. Now, that is in the past; we took the militarism out of the Japanese, and now we have to reconstruct them. It's a delicate situation. But we can't reconstruct a foreign nation to the detriment of ourselves. The lady touched on that. We can give half a loaf, but not the whole loaf.

I know how legislators are. I'm a former secretary of the Washington State Senate. I love men who work on legislation. You are underpaid. You work long hours, and the public doesn't know it. But I hope you can think of some way to help your fourth largest industry.

Captain Luckel knows all about it. He lives with it. And Jack Schrade. This thing is big -- it isn't "peanuts", gentlemen. It's tremendous stuff. Maybe your legal counsel or somebody can think of a way to equalize the price of fish as it comes to the market.

As was brought out here, the Japanese tuna loses its identity when it is canned. Gentlemen, you can go in the market and find the tuna made in Japan, which a great canning company produces because it buys it under the market. Now, can't we stop that?

It is an international and a national situation, under the Interstate Commerce Commission, but hasn't this legislative body got a committee that could handle it for the second largest state in America? We have nearly fifteen million people.

We've got brains enough in this Legislature to follow quickly what the Congress is trying to do now in this thing to settle it. I'm telling you, gentlemen, it's big. If any one of you members thinks of a way to equalize this thing and prevent this fish from coming here -- I think it can be done on a state level in this great state.

Now, you gentlemen have your legal advisers. Isn't there any way to equalize this method? It's a half-billion-dollar industry in this state -- a half a billion dollars. Just add it up.

MR. THOMAS: I still think the proper machinery has been set up in California, and I highly recommend that the industry pursue it, to present its problem to the Interstate Cooperation Commission. I think you've got a good vehicle, and when the Council of State Govern-



ments speaks, it speaks officially, you have a little official weight.

Last evening I saw in the paper where there is a meeting with the Governor on the future of San Diego, next week. I suggest you talk to the Governor and have him refer the matter to the Interstate Cooperation Commission.

DR. CHAPMAN: We will do that, Mr. Thomas. I might say we will talk with Senator Knowland, also; he is supporting our legislation. We are getting strong support from everyone we can reach.

CHAIRMAN BELOTTI: Does anyone here have anything to offer on any of the subject matter that we have gone over during this hearing today?

MRS. BARRETT: Mr. Chairman, we have here the Chairman of the Tuna Wives Emergency Committee. She said she couldn't add any more to what has been said, but she also asked that I bring out the fact that the rest of the delegation here really feel a deep appreciation for your giving of your time and effort, and we will be looking forward to some of your suggestions. We will have Captain Luckel see you make some of these appointments, and I hope we can all work together and save our industry.

CHAIRMAN BELOTTI: Thank you. I know I can speak for the members of this committee when I say that we are appreciative of the fact that you have come here. You have sat there very patiently, waiting for the opportunity to tell us what your problems are. Our job is to listen and to endeavor to help resolve them, and to find the correct, the right solution. We want to assure you that we will do just that.

Now I would like to ask Captain Luckel, before we adjourn, if he has anything else to offer. We certainly appreciate the fact that you sat here with us all day long.

MR. LUCKEL: Well, Director Jacobson said he would be down on

the 18th of October, or thereabouts. I think if, at an early date, you, as chairman of the committee, could recommend to him that you set up that meeting, that would be most helpful. Mr. Thomas is a member of the Interstate Cooperation Commission. And then there is another thing to do -- ask the Governor to put whatever he can on it as a special order of the next session, whether it is a budget session or a water session. The committee could do that, and I'll certainly do it myself.

MR. THOMAS: Well, the Governor is over-all chairman of the Commission. The Director of the Department of Agriculture is the acting chairman of our Commission. If you see the Governor, you can tell him what you want.

CHAIRMAN BELOTTI: I couldn't think of a better opportunity than when he comes down in the near future.

MR. LUCKEL: Well, the Governor is going to meet with these ladies on the 13th. He has heard about this, and has sent a letter down that he wants to meet with them right after his radio broadcast.

CHAIRMAN BELOTTI: I can remember when I went to the Legislature for the first session in 1951, when Captain Luckel was Chairman of the Committee on Transportation and Commerce. He is Chairman of that committee right now, so I know this is one of the problems very close to him. He tries to impress us with the seriousness of it, and in addition to that, believe me, he has a lot of other problems, too.

Jack Schrade is a member of our Fish and Game Committee, so I'm going to ask if he has any further statement to make. You are one of the representatives, and a very effective one, from this part of the state.

MR. SCHRADE: Mr. Chairman and members of the committee, I want to take this opportunity, on behalf of the people whom we represent here in San Diego, to thank you for bringing this committee down



to San Diego. We feel that we have real problems in San Diego, as you are well aware of, from the testimony that we have received here today. I'm sure that each and every one of us who has spent the day here has learned something of these very serious problems. The people are really appreciative of your coming here, and the San Diego delegation from the Assembly is very grateful to you for coming down.

CHAIRMAN BELOTTI: Thank you, Jack.

Now, I represent the First Assembly District. I start at the Oregon line, and Jack is from the Eightieth, so I always like to refer to that situation in this way: (Jack is a good colleague of mine; he is a big help to me, particularly when I refer to the attitude of those from the South) I say, "There is my friend from the South, the Eightieth Assembly District, and I'm from the First, so all we have to do is pick up the support in between and we have it".

But Jack is a member of the very, very influential Rules Committee in the Assembly. He makes the rules, so we do have to be good to him, because if we're not he can make some pretty tough decisions.

Well, I guess that's it.

MR. THOMAS: Mr. Chairman, I have a problem here. I received a letter from the President of the Northern Association of Wildlife Conservation Clubs -- and I assume the committee received a copy of the letter -- stating the reasons why he did not appear. Therefore, I suggest, for the best interests of everyone, that the committee invite the President of the Northern Counties Wildlife Conservation Association to attend one of our meetings, and to give a report on the legislation in which he is interested with whatever comments he wants to make. There is some misunderstanding there.

CHAIRMAN BELOTTI: I'm glad you brought that up, Mr. Thomas. I think the members of the committee not present at the meetings in

Redding and Susanville know that letter and I might read one paragraph of it.

He says, "When I entered the room" -- he is referring to the meeting in Redding -- "and found it occupied chiefly by Mr. Gordon and the same old crowd that has been supporting him and his policies, I decided that was no place for me to present any of my evidence." He goes on to say that "I am in no wise blaming you because I feel much as I do about the fish and game, but if ever a meeting was stacked that was one. I am writing several other members of the committee, and to Assemblywoman Pauline Davis, saying the same thing.

"From the viewpoint of our group, the meeting was a waste of valuable time, to say nothing of the taxpayers' money. Apparently there are sportsmen of the mountain area who think likewise, from what I hear of the Susanville meeting."

MR. THOMAS: I think the northern sportsmen should be given an opportunity to present their views, and I make that suggestion.

CHAIRMAN BELOTTI: You mean through this gentleman who wrote this letter?

MR. THOMAS: Yes, and send him an invitation.

CHAIRMAN BELOTTI: Yes. I'm glad you brought it up, and I will see that he receives the proper invitation and that he appears before the committee, possibly at the next meeting that we will have.

MR. THOMAS: If he doesn't want to appear with Mr. Gordon, we can ask Mr. Gordon to stay away, can't we?

Is it all right, Mr. Shannon?

MR. SHANNON: Well, I can't answer for Mr. Gordon, although I do think Mr. Bull had an opportunity to speak, and I think that the meeting was open. I wasn't there, but from the reports I heard, anyone who wanted to talk had ample opportunity. If he wants to speak again, certainly, like any other citizen, he should be allowed to do



that. But I think he has no complaint about the way that meeting was held.

CHAIRMAN BELOTTI: I will read this final paragraph from his letter: "It was an insult to the intelligence of real sportsmen to have such a meeting as the recent one held in an area where memories of last year's deer slaughter are still fresh. If the committee really wants to learn what people up here are thinking, let's have some field trips and talk to them who really know the country, including the land-owners.

"Possibly some night meetings might be in order. Many working men cannot attend the day sessions."

Well, this gentleman sat at the meeting all through this meeting, and came fully prepared to testify before the committee, the same as you folks came here today, and he had all kinds of opportunity to present his side of it, but he never got up and said one word. But, following the meeting, of course, then he elected to make disparaging remarks, not only about the committee but about members of the Department who appeared there at my request to answer questions, and also remarks that were certainly not complimentary to officials of the Departments of Fish and Game from the State of Oregon and the State of Nevada, who very graciously consented to come down and did come, at their own time and expense, to give us the benefit of their experience on these matters. And he made all these statements for the benefit of the press.

Now, I feel that is certainly not the American way of doing things. I want to give this individual another opportunity to come before the committee to ask questions, and see if his statements could not be justified on the basis of what he says are facts. If there is any other way that these things can be done, we certainly would like to know it.

MR. ALLEN: Might I inject myself there, Mr. Chairman, at this particular time? I have seen Charlie Bull sitting out there in the audience when we were practically soliciting people, we were practically running up and down the streets, trying to get someone to testify. We thought we were going to run into a fact-finding committee setup. Charlie sat in the back and made about as much comment as a cigar store Indian. After the committee had adjourned, when he hit the curb -- boy, what a curbstone session we had!

And I told him, "Look -- the place was in there, to give the testimony." He said, "Well, Seth Gordon had his stooges and had it all fixed," and so forth.

I told him, "If that were me, I wouldn't care. That's about the time I would go in."

I've got a little grandson who was sent to a party one time by his mother, and when he got there one little kid came to him and told him that the only reason he was invited over was because the kid's mother invited him. My daughter-in-law asked him, "Did you feel insulted?" The boy said, "No, I didn't. I just poked the kid in the nose and ate his ice cream, too." I was always that kind of a guy, too. I said to him, "The opportunity was there for you to present your stuff, Seth Gordon notwithstanding. Frankly, you're a bigger man than Seth Gordon." (Physically, that is. I won't go into the mental aspects of it.) This guy, Bull, is as big as I am, and I'll submit to you that's a lot of Bull.

I told him I would have protected him, but he just didn't seem to do it. If you want to get him back before the committee again, I'm going to warn you, I'm going to have a little fun with the gentleman. That's where I'm going to turn toreador, when you bring the "Bull" in.

CHAIRMAN BELOTTI: The meeting is adjourned. (6:25 P.M.)



ROY ROBERTSON & SONS  
Los Angeles 23, California  
4246 Whittier Blvd.

September 23, 1957

Mrs. Vivian Wherley  
Room 3111  
State Capitol Annex  
Sacramento, California,

Dear Mrs. Wherley:

It is my desire to attend the Fish and Game Interim Committee, which will meet on October 2, 1957, at the Chamber of Commerce Hall, in San Diego, California. Should business matters detain me, then I wish my protest of (Assembly Bill 2307) be read to the committee.

To all those present, let it be known that I vigorously oppose the intent of Assembly Bill 2307. The only time any form of control should fall upon the Dove, or any other game bird or animal, is when the Federal Fish and Game or State Fish and Game, find the need for such action.

As a form of recreation and sport, hunting Doves has taken its place on top of my list. This year I had the grand experience of taking my 10 year old son Kenneth on his first Dove hunt. Gentlemen, if you have a son and have failed to take that boy out into the open fields on a hunting trip, you have missed part of life itself. There is much more to be had than just the shooting of the game, but take away the combination of both and you have destroyed what I believe to be the most wonderful thing that can happen to father and son.

I do know for sure not one of the proponents of this Bill 2307 have ever really enjoyed the pleasures to be had while hunting.

Consider well, gentlemen, because I truly believe these same persons will ask for more and more, it is their way of life and cannot change.

Respectfully yours,

/s/  
Gene Robertson